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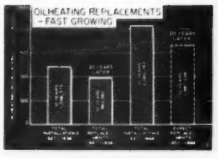

Replacing is big Business

Modernization of Oilheating is an accelerating sales Source 53

Push oilfired water Heating

Here It's used to help sell Oilheating to home Builders 66

Be positive

Mudslingers just get dirty; Negative Themes don't sell 69

Oilheating dealers' Conference at St. Louis "without the Blues" 72

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...with BRODIE *SHOCK-FREE* QUANTROLS

- + Puts automation into bulk handling
- + Just set it and start it
- + Stops flow smoothly at preset gallonage
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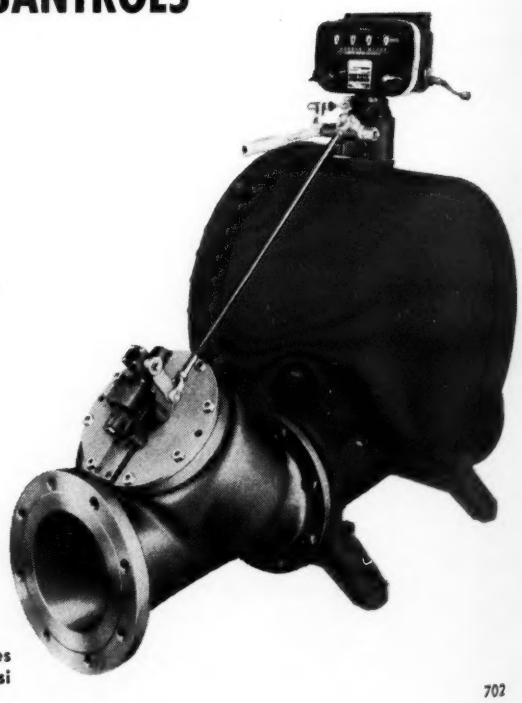

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APRIL fueloil & oilheat 1957

VOLUME 16 NUMBER 4

Publication and Editorial Office: 2 West 45th St., New York 36, N. Y.

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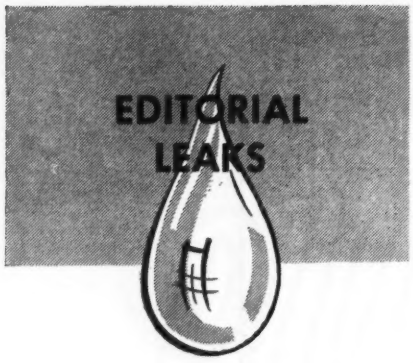
Among other things . . .

Without being promoted as a special issue this number does give a lot of prominence to one general topic, replacement and modernization of old oilheating equipment. Following the dealer study on page 12 where they outline their approach to the replacement market, we move to the feature section to find the first five articles relating to this general field. Because of the advancing age of oilheating as an industry the replacement market must become particularly important in the years just ahead.

The Vern Carrier paper on the positive approach to oil heat advertising is a constructive contribution from a major oil man and the first of four papers to be published, all by prominent experts on this general theme. Then the Chicago heating exposition gets into the issue for eight feature pages.



THE MOST INTERESTING development at the St. Louis meeting of OHI's board of directors was a proposal for a quality seal campaign for the oilheating industry. Ralph Becker, managing director of the Institute, told the members of several meetings that he had shared with industry officials and government or other regulatory bodies aimed at making an OHI seal on oilheating equipment a recognized standard of excellence.

The government agencies concerned with housing like it. Underwriters' Laboratories is willing to share this seal so that it will be a joint UL-OHI label on the equipment. The Underwriters testing for safety will be enlarged to include testing for OHI standards of performance.

The general plan is to collect $1 a unit from manufacturers who would use the seal and then pass this charge through wholesale and dealer billings to the consumer. The money raised would be spent in two ways: one, educating all levels of the industry toward peak performance; and two, educating the public to demand the OHI seal on oilheating equipment.

The directors approved the plan in principal and asked Becker to present it fully developed to the annual meeting of the Institute at Boston in June. Not the least of the benefits from such a program would be the stimulation at all levels of the industry that always follows some brand new project that lets everyone emphasize fine service to the public.

JUST ABOUT ONCE each month someone in the fueloil and oilheating industry sends to the editor a long dissertation—diatribe is a better word—on what a deplorable condition the industry has reached. We don't publish these horror stories.

First, we don't believe them, and second, we suspect that the author is mostly interested in personal publicity.

Sometimes when we refuse these offerings the avid writer sends them to another publication. Occasionally they are printed because of their dramatic impact, but we notice that this only happens once. The other publications reject the second spasm from the same author. In extreme instances he then publishes the thing himself in a booklet for wide circulation.

It was around the turn of the century that American journalism did its best with the muckracking authors. Ida M. Tarbell and Lincoln Steffens built quick reputations by proving that most of our institutions were built on sand. Everything was about to blow away, and if it didn't, it should because there was no sincerity to be found.

We have their counterparts today in the oilheating industry. They have discovered that you can gain quicker notoriety by viewing with alarm than you ever can by pointing with pride.

In the short but dynamic years of America's development there have been lots of things wrong, but obviously the good things far outweighed the bad ones or we would not have arrived at this state. The same is true of the oilheating industry or of any industry.

There is an old saying that "Sugar catches more flies than vinegar." We'd sooner say that profits will always be more effective than prattle.

There are some temporary or local soft spots in our service to the public, but they won't stay that way for long. Either the customer will switch to a more intelligent dealer who takes better care of him at a profit or he'll give up oilheating and go to something else, which fortunately does not often happen.

The most recent horror story came from a man who runs a trade school. He wept bitterly over the point that 10,000 oilburners had been tested and found to have an average efficiency incredibly low. It was hard to believe that such a big survey was done without our knowledge so we asked for details.

We learned that he was not familiar with the survey, but had been told about it. Also, he later confessed that it wasn't as bad as he previously thought. The obvious truth is that he had little basis in fact, but he got it published in its original form.

We would never have grown into a business with nine million users and more than $2 billion in fueloil sales each season if we didn't offer something quite fine to the American family.

If our industry never had any troubles, everybody would quit what they are now doing and come in with us. And then our troubles would start from over-population.

The truth of the matter is that we have a fine industry, a wonderful lot of customers happy to be doing business with us, and an excellent future for men with any confidence in themselves. Why can't we relax and enjoy it?

WE HAD a phone call a few days ago from a prominent engineer in our industry and he gave us a good laugh at our own expense. In the middle of January the gas pipeline had trouble near Syracuse and seven towns with thousands of homeowners were cold for lack of gas heat.

We kidded the gas industry on this page by suggesting that it was so fortunate that the Governor of the State and the local authorities were able to move some of the families into school houses heated with oil.

The engineer called to tell us that we'd missed part of the story. A lot of the families with gas supply cut off and temperatures below zero went out and bought everything they could for temporary electric heating. They plugged these in over the house, soon overloaded the lines and burnt out transformers by the dozens. This meant that the neighbors with oilheating couldn't run their burners so they froze up too.

About those families that went to the school houses, they had to be moved a second time to the occasional ones heated with coal.

Bob Gray

what a timesaver!

for new burner installations

Scully's Exclusive and Improved VENTALARM® GAUGE

One single unit combining the original VENTALARM Whistling Tank Fill Signal with a Tank Gauge.

featuring

the new "Built-In Whistle Protection" of VENTALARM Signal.

new calibration to support Degree Day Delivery. Gauge reads full when whistle stops. Button will not indicate less oil than there is — thus reducing premature customer calls.

Goes on the tank as an integral part of the vent pipe. One item to install instead of *three* (including the reducer bushing).

Available for 275 gallon cellar tanks with depths of 22", 24", 26", 27", 37", 42", 44" and 47". Specify tank opening and depth when ordering.

Sizes: VG-A 2" x 1¼", VG-B 1½" x 1¼"

Scully Products are manufactured under U. S. and Foreign Patents or Patents Pending.

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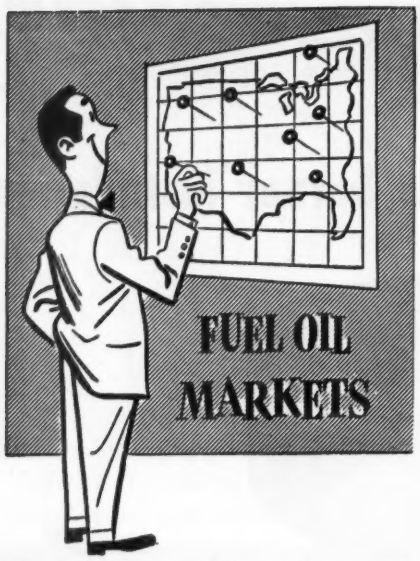


PRICE CHANGES this month are mostly limited to Midwestern markets although there was one alteration on the Pacific Coast. The table is based on the 15th of each month, and it just happens on that date there was a little uncertainty over the exact situation in some Midwest cities.

Prices in the table are quotations current at New York on that date, but we did have a press release from Standard of Indiana saying that tank wagon prices to consumers in ten states were being reduced a half cent and the information could be published in the afternoon newspapers of the 15th.

Our table shows only two Midwest markets where the consumer or tank wagon price was down a half cent—Chicago and Milwaukee.

There were several changes at the tank car or wholesale level. Cleveland is up a half cent to 12.6; Minneapolis is down 3/8¢ to 10.875; St. Louis and Indianapolis are each down a half cent. Chicago and Milwaukee show no change in the posted tank car price but allow 1/2¢ temporary discount.

On the West Coast we find Los Angeles tank car prices down 1¢.

In explaining its half cent reduction across ten Midwestern states, Standard of Indiana said that it is due to a falling demand for the products. This is borne out by the fact that Midwest degree days to the end of February were 7% below normal on the average, and 10.1% below 1956. This also shows up strongly in the table of primary stocks. Notice that the Midwest for March 13 shows 27% more distillate fuel on hand than last year.

No. 2 Heating Oil (Including No. 3 & PS200)

Price per gallon as of March 15, 1957

	Tank Car	Tank Wagon		Tank Car	Tank Wagon
Portland, Me.	12.1	15.9	Richmond	12.3	15.6
Boston	12.0	16.0	Charleston. S. C.	11.9	15.1
Providence	12.0	15.9	Chicago	12.0*(A)	15.1
Springfield, Mass.	12.25	15.9	Detroit	12.25*	16.2
Hartford	12.25	15.9	Cleveland	12.6*	15.6
New Haven	11.9	15.6	Minneapolis	10.875	15.3
Syracuse	12.9	16.1	St. Louis	11.3*	15.4
Albany	12.1	15.7	Indianapolis	11.8*	16.1
New York	11.9	16.0	Milwaukee	13.35*(A)	16.0
Newark	11.9	15.6	Des Moines	10.50	15.5
Philadelphia	11.9	15.4	San Francisco	11.65	14.2
Harrisburg	11.9	16.0	Portland, Ore.	12.35	14.9
Baltimore	11.9	15.7	Seattle	12.35	15.0
Wilmington. N. C.	11.9	15.2	Spokane	14.25	16.9
Washington	11.9	16.1	Los Angeles	11.15	13.7

*Delivered.
Tank wagon prices shown are for maximum one-time delivery discounts.
(A) Price subject to .50¢ temp. disc.

DEGREE DAY TABLES

ONE MONTH ONLY					SEASON TO DATE			
Normal	February 1956	February 1957	Percent Change*		Sept. through Feb. Normal	Sept. through Feb. 1956	Sept. through Feb. 1957	Percent Change*
1179	1123	1006	—14.7	Albany AP	5056	5161	5058	+ 0.3
512	396	291	—43.2	Atlanta AP	2269	2355	1689	—25.6
840	758	719	—14.4	Baltimore AP	3613	3696	3238	—10.4
1002	936	842	—16.0	Boston AP	4123	4251	4083	— 1.0
1128	1061	951	—15.7	Buffalo AP	4777	4795	4474	— 6.4
577	490	420	—27.2	Charlotte AP	2555	2573	2010	—21.3
1053	1025	877	—16.7	Chicago AP	4648	4577	4258	— 8.4
812	765	725	—10.7	Cincinnati CO	3465	3811	3350	— 3.3
1019	967	891	—12.6	Cleveland AP	4322	4402	4036	— 6.6
432	434	288	—33.3	Dallas AP	1909	2000	1741	— 8.8
924	1072	674	—27.1	Denver AP	4397	4257	3953	—10.1
1092	1137	912	—16.5	Des Moines AP	4877	5297	4613	— 5.4
1072	1061	958	—10.6	Detroit AP	4600	4611	4370	— 5.0
1086	1166	1025	— 5.6	Grand Rapids AP	4663	5011	4677	+ 0.3
1050	986	926	—11.8	Hartford AP	4494	4592	4623	+ 2.9
1165	1344	1202	+ 3.2	Helena AP	5881	6483	6100	+ 3.7
265	219	129	—51.3	Houston AP	1168	1068	809	—30.7
938	906	793	—15.5	Indianapolis AP	4201	4341	3839	— 8.6
851	877	719	—15.5	Kansas City AP	3811	3980	3502	— 8.1
244	338	146	—40.2	Los Angeles CO	1023	1096	685	—33.1
778	680	644	—17.2	Louisville AP	3444	3485	1183	—65.7
1142	1153	1036	— 9.3	Milwaukee AP	5089	5111	5034	— 1.1
1310	1444	1241	— 5.3	Minneapolis AP	5862	6422	5599	— 4.5
223	145	101	—54.7	New Orleans CO	993	1043	621	—37.5
904	814	774	—14.4	New York CO	3670	3717	3473	— 5.4
1058	1121	904	—14.6	Omaha AP	4728	5226	4362	— 7.8
837	764†	765	— 8.6	Philadelphia AP	3394	3451†	3426	+ 0.9
879	808	757	—13.9	Pittsburgh CO	3761	3869	3471	— 7.7
1218	1166	1062	—12.8	Portland, Me. AP	5367	5383	5430	+ 1.2
594	793	589	— 0.9	Portland, Ore. CO	2985	3259	3281	+ 9.9
1019	941	866	—15.0	Providence AP	4339	4379	4272	— 1.6
722	662	599	—17.0	Roanoke, Va. AP	3194	3388	2882	— 9.8
792	776	667	—15.8	St. Louis CO	3478	3649	3233	— 7.1
885	1113	685	—22.6	Salt Lake City AP	4358	4248	4339	— 0.4
336	390	302	—10.1	San Francisco CO	1679	1787	1600	— 4.7
1442	1348	1344	— 6.8	Sault Ste. Marie AP	6369	6124	6348	— 0.3
602	768	634	+ 5.3	Seattle CO	3037	3457	3287	+ 8.2
1056	1040	934	—11.6	Toledo AP	4617	4777	4433	— 4.0
781	685	657	—15.9	Washington AP	3304	3365	3119	— 5.6

*Compared with normal. †City Office.

With the East Coast also having a winter 4.5% warmer than 1956 and 2.2% warmer than normal to February 28, the primary stocks are comfortably strong.

Unless we get some cold weather in early spring this may be the year when distillate demand will fall below the previous year for the first time. The extra cold winter last year has not been offset by the new crop of burners.

Distillate Fueloils

PRIMARY STOCKS*

(Thousands of Barrels)

East of Rockies

	Mar. 8 1957	Mar. 9 1956
East Coast	29,136	26,652
Midwest	25,181	19,891
Gulf Coast	17,127	12,628
Total	71,444	59,171

*American Petroleum Institute.

This new fuel oil formula—

MEANS MORE SALES . . .
MORE CUSTOMER SATISFACTION!

Take America's famous fuel oil brand—Mobilheat. Add the most completely effective clean-action additive ever developed—revolutionary RT-98. Result? A top-quality fuel oil that helps keep fuel tanks, lines, strainers and filters free of dirt and sediment. That means complete satisfaction to your customers.

There's another important reason why New Mobilheat means more fuel oil sales for you. It's backed by one of the greatest names in the petroleum industry—Socony Mobil—with 91 years of oil marketing and merchandising experience.

Make it warm for your customers..."hot" for competition with new improved ***MOBILHEAT!***

SOCONY MOBIL OIL COMPANY, INC., and Affiliates: MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

Oilheating Trends

FEBRUARY INSTALLATIONS of domestic oilheating equipment are estimated at 39,628. This compares with January's 46,370 and with last year's February installations of 46,872. This registers a drop of 15% or the same as the January decline. February is normally one of the two lowest months of the year so its comparative figures are not too significant.

The February installations were divided: New homes, 9,963; Replacements of old oilheating equipment, 9,193; and Conversions from other fuels, 20,472. This is quite a change from the January ratios, but is typical at this point of the season.

Total installations for the first two months were 85,998 compared with 101,953 for the starting two months of 1956. This 1957 two month total was divided: new homes, 31,010; replacements of old oilheating equipment, 25,179; conversions from other fuels, 29,809.

Burner Stocks: Dealers had on hand approximately 77,447 domestic oilburners and units at the end of February compared with 87,771 a month earlier and 110,387 at the end of February last year.

This demonstrates a cautious inventory attitude which is probably influenced by the unfavorable publicity on new home starts.

The current dealer stocks are divided: Separate burners, 36,862; Boiler-burner units, 19,129; Furnace-burner units, 21,456.

Factory stocks at the end of December were 51,530 domestic burners and units compared with 52,345 on the same date, the previous year.

Tank Stocks: At the end of February dealers had on hand 36,965 customer oil tanks compared with 49,289 a month earlier and with 58,329 a year earlier. This again discloses cautious inventory atttitude.

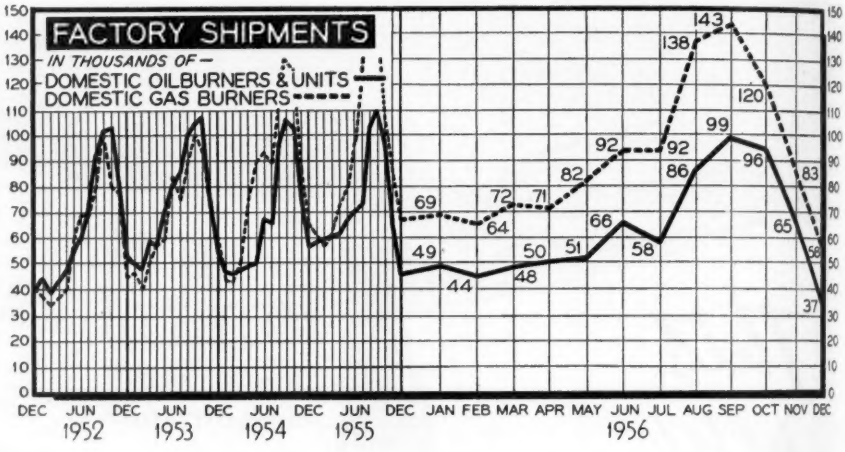
The average price paid by dealers in February for a 275 gal. basement tank was the same as the previous month or $33.

Minimum Retail Prices of Key Dealers

	Feb. Avg.	*Jan. Avg.*
Separate Burners	$313	$311
Boiler-Burners	727	716
Furnace-Burners	613	615

Price Index: Separate Burners 1947-49 is 100%

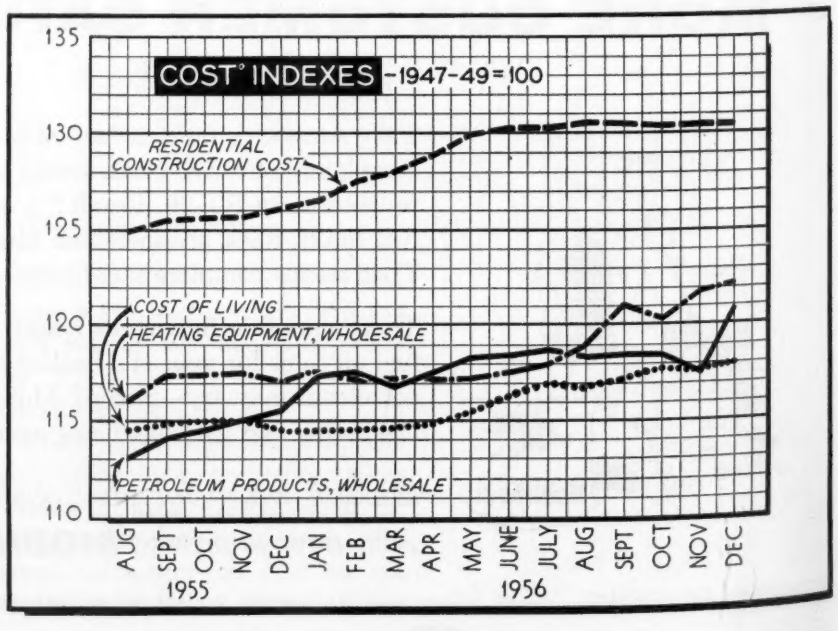
WHOLESALE			
Feb.	95.8	Six months ago	94.5
Jan.	95.6	Year ago	93.8
RETAIL			
Feb.	93.2	Six months ago	92.0
Jan.	92.5	Year ago	93.8



Shipments of Oilburners and Units
(Including Exports)

Adjusted to include manufacturers other than the 145 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	DECEMBER			TWELVE MONTHS		
	1956	*1955*	*Percent Change*	*1956*	*1955*	*Percent Change*
Separate Burners	24,947	31,207	— 20.1	479,922	571,603	— 16.0
Boiler Units	2,991	3,827	— 21.8	78,690	81,496	— 3.4
Furnace Units	9,409	10,622	— 11.4	189,737	207,534	— 8.6
All Domestic	37,347	45,656	— 18.2	748,349	860,633	— 13.1
Commercial	4,087	3,367	+ 21.4	42,414	41,284	+ 2.7
Total	41,434	49,023	— 15.5	790,763	901,917	— 12.3

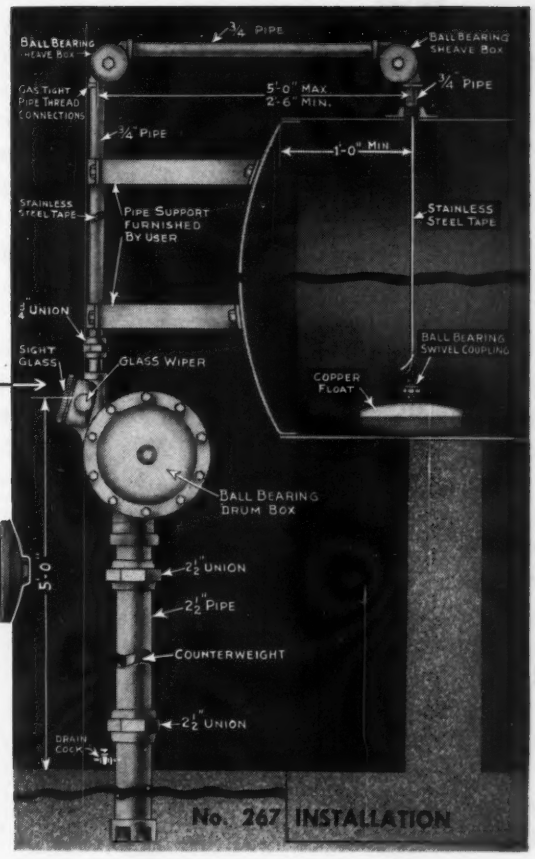

COST° INDEXES -1947-49=100
RESIDENTIAL CONSTRUCTION COST
COST OF LIVING
HEATING EQUIPMENT, WHOLESALE
PETROLEUM PRODUCTS, WHOLESALE
AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
1955 1956

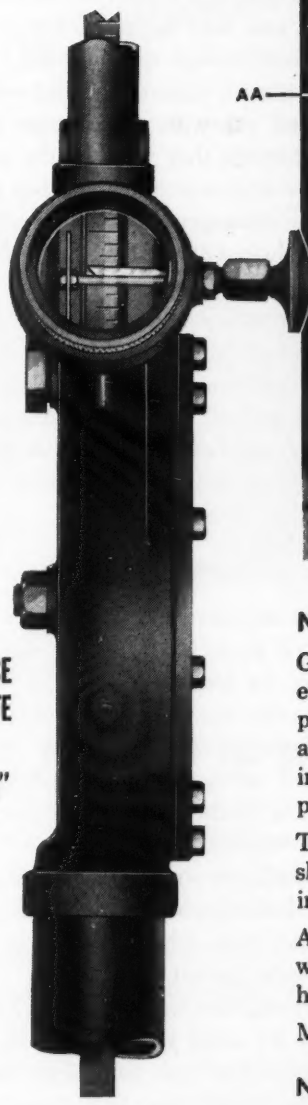
When accuracy is essential...

direct reading

OPW TANK GAUGES

give true liquid level

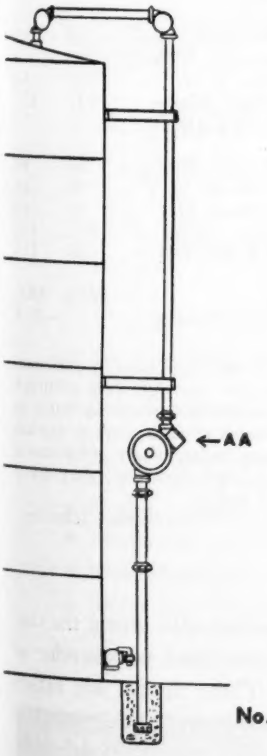




DETAIL (SIGHT GLASS) VIEW AA

SAVE TIME—REDUCE HAZARDS—ELIMINATE CLIMBING ON TANKS —"STICKING"

- **Tank content instantly read at ground level.**
- **Simple to install, easy to operate.**



No. 277 INSTALLATION

No. 267 BOTTOM READING TANK GAUGE

Gauge consists of a copper float, operating effectively from a minimum liquid level, suspended and counter-balanced to actuate readable, graduated stainless steel tape. A ball bearing swivel connecting float to tape prevents any possibility of tape twisting.

Tape travels over flat ground ball bearing sheaves. A counter-weight, which winds on an integral drum, counter-balances the float.

A liquid sealed sight glass, equipped with a wiper blade, is carefully mounted on face of housing.

Maximum recommended tank height—15 ft.

No. 277 BOTTOM READING TANK GAUGE

Similar in construction to No. 267 with the exception of the float guide. For maximum accuracy the float is held plumb by monel cables which are attached to an anchor at base of tank and pass over grooves of spreading arms to counter-weights.

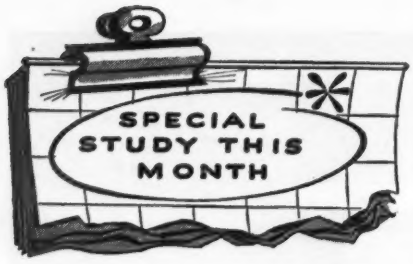
Standard unit includes tape for 20-ft. tank.

Maximum recommended tank height—40 ft.

OPW CORPORATION — FOR HANDLING HAZARDOUS LIQUIDS — OPW — VALVES • FITTINGS • ASSEMBLIES — CINCINNATI 25, OHIO

OPW manufacturers Emergency Valves, Gate Valves, Vents, Line Strainers and other equipment for tank installations. Write for complete *FREE* Catalog No. 18.

OPW CORPORATION 2735 Colerain Ave., Cincinnati 25, Ohio Klrby 1-5400



Replacement Sales

Because of the special emphasis in this issue on the replacement activities we made this our special study this month.

Total replacement sales of oilheating equipment in 1956 were approximately 141,838. It is particularly interesting that only 45% of these replacements were separate or conversion burners installed in an existing boiler or furnace. Complete new boiler-burner units accounted for 25% and new furnace-burner units for 30%.

Stated another way, replacement business accounted for 35,460 new oil boilers, and 42,551 new oil furnaces during 1956.

One of the nice things about replacement business is that prices average a little better than in the straight competitive market. That is the way 34% of the reporting dealers express it while the other 66% say that their pricing is the same for replacement business or new users of oilheating.

None of them prices replacement sales below the average of other sales.

Recognizing that replacement sales are becoming each year a larger percent of our total sales it is particularly interesting to learn their source. In other words, how does the dealer get the replacement sale.

The most important single source is logically the service department, where a mechanic reports a job in bad condition and either makes the sale or gives the sales department the prospect. This accounts for 44% of all replacement installations.

The next most important single source is advertising in public media such as newspapers, radio or television; this accounts for 12%. Notice that this type of advertising is not limited to present customers, but is designed to impress every oil user.

There's another important kind of advertising, direct mail promotion to present customers, and this is credited with originating 6% of total replacement sales.

Then we have salesmen canvassing house to house to "inspect" existing heating plants, and from this activity we get 9% of the leads that bring replacement sales. The sales department has one other approach to replacement selling and uses it quite effectively: They look through the customer cards in the service department and where they find one with service costs well above average they work on the prospect for replacement sale if they find that the equipment is fairly old. This activity brings 8% of the total replacement business.

The remaining 21% of leads that result in replacement sales come from a considerable variety of miscellaneous sources such as: walk-ins; oil salesmen hearing complaints; present customers referring a dissatisfied neighbor and such like.

Competitive Fuels

Next we asked the group if the gas industry in their markets is actively digging for antiquated oil jobs. The vote on this was 75% "yes," and there was some sectional variation. New England voted 83%; Mid Atlantic 66%; the Midwest 89%; and the Pacific Northwest, 67%.

It's perfectly obvious that this would be the best approach for the gas people other than what they sell in the new home market.

Carrying that line of thinking a step farther we asked what percent of the customers that gas has taken away from us would have had antiquated oilheating equipment. The composite answer is 60% and this was rather similar in all parts of the country. In other words, where gas displaces oil in a house 60% would be instances where we should have sold modern equipment to displace the antiques.

The other 40% represents gas displacing relatively good oilheating equipment. Translated to actual figures last year the oilheating industry lost to gas approximately 82,205 of its customers. Of these, a little over 49,000 were worn out jobs that we should have replaced, and about 33,000 were our more modern jobs where the customer was dissatisfied with service or fuel costs. These figures are rather unhappy when looked at this way, but actually they are only fractions of 1% of the nearly nine million jobs in operation.

When we asked the dealers when they think a customer should consider

Oilheating Permits*

FEB. 1957		2 MONTHS' 1956	TOTAL 1957
3	Albany, N. Y.	6	4
18	Baltimore, Md.	96	36
77	Bridgeport, Conn.	161	160
6	Columbus, O.	6	8
44	Detroit, Mich.	347	96
23	Elizabeth, N. J.	73	45
16	Freeport, N. Y.	59	37
..	Hartford, Conn.	65	..
5	Irvington, N. J.	24	11
23	Meriden, Conn.	67	57
22	Milwaukee, Wis.	355	55
20	Minneapolis, Minn.	35	33
12	Montclair, N. J.	21	26
3	Morristown, N. J.	4	3
13	Mt. Vernon, N. Y.	28	51
43	Newark, N. J.	107	100
38	New Bedford, Mass.	278	42
14	New Haven, Conn.	29	35
11	New Rochelle, N. Y.	32	26
19	Norfolk, Va.	110	76
6	Omaha, Neb.	16	27
2	Orange, N. J.	10	12
5	Passaic, N. J.	9	9
13	Paterson, N. J.	33	27
171	Philadelphia, Pa.**	396	378
33	Portland, Me.	90	85
142	Portland, Ore.	532	263
4	Poughkeepsie, N. Y.	25	26
..	Providence, R. I.	136	..
18	Richmond, Va.	89	79
46	Roanoke, Va.	198	94
29	Rochester, N. Y.	76	89
7	Rockville Centre, N. Y.	18	10
21	Salem, Mass.	81	37
..	St. Louis, Mo.	372	..
11	St. Paul, Minn.	24	19
3	Schenectady, N. Y.	13	7
38	Spokane, Wash.	169	66
53	Springfield, Mass.	177	121
20	Stamford, Conn.	39	39
17	Washington, D. C.	99	49
13	White Plains, N. Y.	28	24
12	Wilmington, Del.	45	16
84	Worcester, Mass.	172	176
17	Yonkers, N. Y.	45	113
1131	Totals	4053	2601
	Percent Change		—35.8

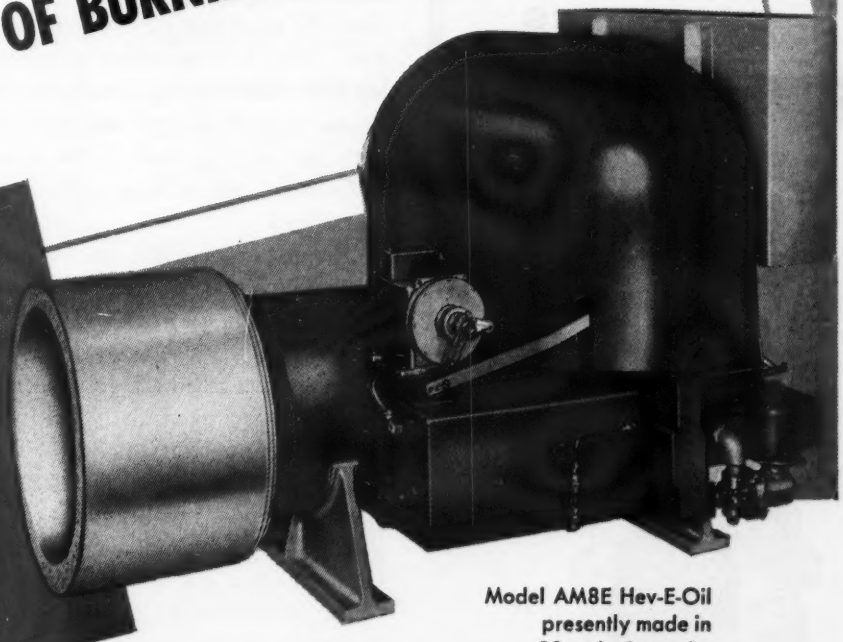
*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

**Courtesy of "Philadelphia Inquirer."

Cleaver-Brooks presents . . .

A REVOLUTIONARY NEW DEVELOPMENT IN THE ART OF BURNING RESIDUAL OILS

Hev-E-Oil
THE FIRST AIR-ATOMIZING
Burner
DESIGNED FOR
No. 6 Oil



Model AM8E Hev-E-Oil presently made in 90 gph size only.

. . . A TRIUMPH IN MODERN COMMERCIAL HEATING

NOW — for the first time in the industry — an air atomizing, gun-type burner designed for No. 6 or Bunker C oil. Previous methods of burning residual oils — with their inefficiencies and high maintenance — are now obsolete.

This great forward step in modern oil burning practice is another example of Cleaver-Brooks' leadership in burner research and engineering.

- No. 6 oil finely atomized — easily and completely burned.
- Burner equipped to bring hot oil to burner nozzle — ready for a perfect start at all times.
- Oil and air measured at all capacities — high CO_2 is maintained under all stack conditions.
- Straight electric ignition available.
- Pressurized lubrication increases service life.
- Fast installation — simple as a domestic burner.
- Latest type electronic controls are standard equipment — burner completely wired at factory.
- Burner completely fire-tested at factory.
- Low fire start — standard equipment.
- High-low modulation — standard equipment.
- Complete modulation available at slightly higher cost.
- Low and high fire easily set for most economical operation.
- Shape of flame can be adjusted for each particular installation.
- Post-purge insures no-drip, sure starting.
- Burner requires a minimum of service, a quality product made by Cleaver-Brooks — a leader in the development of combustion equipment.

Cleaver Brooks

DEALERS AND DISTRIBUTORS . . . write today — get the complete details on the new HEV-E-OIL Burner for No. 6 oil. CLEAVER-BROOKS COMPANY, Dept. D, 379 E. Keefe Ave., Milwaukee 12, Wisconsin.

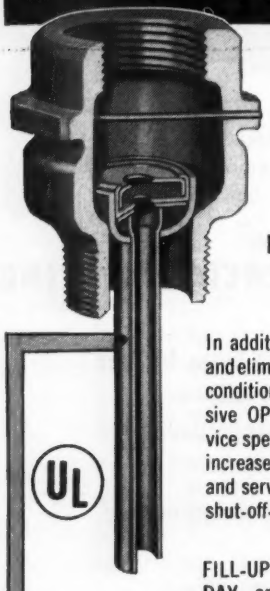
HEV-E-OIL Burners . . . a quality product that builds your profit

STOP

- OVERFLOWS
- DELIVERY DISTURBANCES
- IRATE CUSTOMERS

INSTALL
OPW TANK WHISTLE

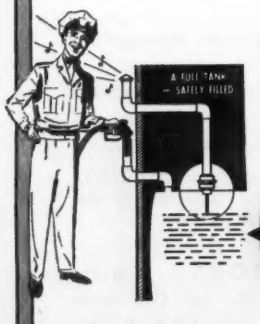
FILL WHILE IT WHISTLES — STOP WHEN WHISTLE STOPS
Tank always fills to proper level.



No. 7-A

In addition to controlling and eliminating hazardous conditions, this inexpensive OPW signalling device speeds up deliveries, increases filling efficiency and serves as the perfect shut-off-time alarm.

FILL-UP time, ANYTIME, DAY or NIGHT, FROM OUTSIDE THE BUILDING.



FREE BULLETINS F-30 and F-34 give full details on all styles, installation, etc.

OPW CORPORATION
2735 Colerain Ave.
Cincinnati 25, Ohio
Kirby 1-5400

replacement . . . in other words at what age of present equipment should they push for a replacement sale . . . 73% of them think the logical time is 15 years. Another 18% vote ten years; and the remaining 20% think a dealer should wait until the equipment is 20 years old. This checks pretty well with earlier studies where we have found that about three-fifths of equipment was replaced at 15 years. It has taken 20 years to get a complete turnover. Also, it is important to remember that oilheating equipment has improved in both quality and efficiency with the passing years so the actual replacement age is being pushed further ahead.

One of the surprising disclosures in this study is that 49% of the oilheating jobs now in use are above 15 years old.

Finally, we asked the group if they think 1957 is a particularly good year to push for replacement sales. They vote 93% for and 7% against. Just about that same number plans to put more effort into replacement selling than they did last year. This is, of course, completely logical with gas and electricity trying to take away more of our oilheating accounts.

What the Dealers say

Dealer comments: Typical observations on the month's questions were these:

"Now house starts are 'off' so we'll have to get more replacements—even gas burner replacements, but it's hard to get a customer interested in replacing an antiquated heating plant that doesn't show as contrasted with kitchens, cars and playrooms." . . .

"Generally, the age of the burner is not the deciding factor; rather the age of the boiler and its relative efficiency is the best selling point." . . . "Replacement will become an increasing percentage of total equipment business, particularly in areas where automatic heating was promoted early in our history." . . .

"We hope to eliminate the 'dogs' and save ourselves and the customer a little money." . . . "We must replace old jobs because the new home market is disappearing." . . .

"Replacement equipment looks like the only thing left for us with today's high price of oil." . . . "With oil prices as they are, if you push replacement now, the prospect will very likely go to gas." . . .

"The advertising done by McDonnell & Miller on old equipment has been very effective." . . . "Two to three years of crop failures in our area will deter sales." . . .

"In general, when a replacement becomes necessary, the customer prefers gas; therefore, there is a tendency for us to try to keep the old equipment going as long as possible, no matter how antiquated it may be." . . .

"We have bought a considerable number of old burners, rebuilt them, added new controls and used them in converting pot-type equipment with good success." . . .

"Gas was getting 98% of the heating sales in Watertown, but the recent freeze-up of gas heated homes due to the pipeline break may affect that. With the weather below zero, everything was frozen up, plaster fell down, wall paper came off, but the gas utility is paying all of the bills including hotel bills for some of the families." . . .

❖

Big Burner Shipments for January improved

TOTAL SHIPMENTS of commercial-industrial oilburners for January were 2,390 which, according to D. H. Bottrill, secretary of Market Research Committee, Oil-Heat Institute of America, is an encouraging improvement of 13% over last January and only a little below the 9-year average for January of 2,435.

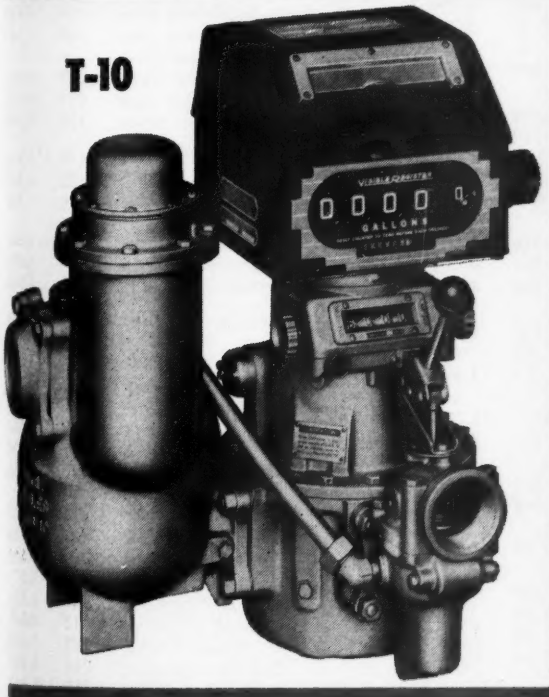
A break-down of shipments as to size and types follows:

	Oil-burners	*Gas-Oil burners*
HORIZONTAL ROTARIES		
2½ and Under	243	—
Over 2½ to 8	16	—
Over 8 to 30	209	12
Over 30 to 100	246	19
Over 100	19	10
TOTAL SHIPMENTS	733	41
GUN TYPE		
Over 5 to 30	1437	74
Over 30	32	11
TOTAL SHIPMENTS	1469	85
ATOMIZING		
30 and Over	62	—
TOTALS, ALL TYPES	2264	126

It's "T" Time

NOW is the time to modernize your tank trucks with improved A. O. Smith truck meters and work-saving *functional* accessories. Thousands are in service, daily proving their speed and accuracy and the dependability of the SMITHway Rotary Principle.

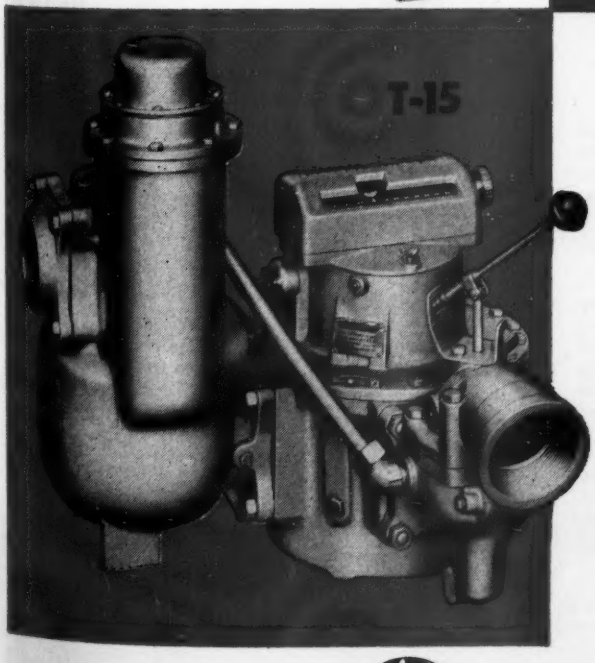
Models to suit every requirement. All feature *unitized* construction which allows greatest possible flexibility in piping arrangements. For complete information, send for Bulletin 127-B.



MODEL T-6 is used on fuel oil tanks in rural and domestic service; also serves many industrial applications; 60 gpm; 1½" pipe size. Shown with combination air eliminator-strainer, back pressure valve and large numeral counter.

MODEL T-10 is widely used on medium-sized tank trucks and in industrial service; 100 gpm capacity; 2" pipe size. Shown with combination air eliminator-strainer, set stop counter and faucet, combination large numeral counter and ticket printer.

MODEL T-15 is noted for fast flow; ideal for high capacity gravity flow and for airport refueling; 150 gpm capacity; 3" pipe size. Shown with combination air eliminator-strainer, manual faucet and horizontal reset counter.



Any combination of counters and functional accessories can be used on the above meters. They may be included from start or installed at a later date.

Through research ...a better way

A.O.Smith
CORPORATION

METER PRODUCTS

Factories: 5715 Smithway St., Los Angeles 22, Calif., P.O. Box 500, Succasunna, N. J. Offices: Atlanta, Chicago 7, Houston 20, Los Angeles 22, New York 17. Canada: Toronto 12, Vancouver 1, International Division—Milwaukee 1, Wis.

Where is the new home Market?

	No. of Permits Issued	
	Dec.	12 Mos.
ALABAMA	660	11,516
Birmingham area	213	3,951
Mobile area	214	2,134
Montgomery area	63	1,222
Nonmetropolitan areas	170	4,209
ARIZONA	834	12,503
Phoenix area	632	8,567
Nonmetropolitan areas	202	3,936
ARKANSAS	185	2,250
CALIFORNIA	10,346	174,143
Fresno area	134	2,651
Los Angeles area	5,282	89,019
Sacramento area	235	5,455
San Bernardino area	1,200	16,424
San Diego area	1,109	13,138
San Francisco-Oakland	1,087	21,230
San Jose area	503	9,181
Stockton area	77	1,581
Nonmetropolitan areas	719	15,464
COLORADO	874	14,147
Denver area	530	9,148
Nonmetropolitan areas	344	4,999
CONNECTICUT	1,101	17,485
Bridgeport area	137	2,037
Hartford area	353	3,899
New Haven area	149	1,974
Nonmetropolitan areas	462	9,575
DELAWARE	121	3,315
Wilmington area	114	3,204
Nonmetropolitan areas	7	111
DISTRICT OF COLUMBIA		
Washington, D. C.	84	4,447
Maryland suburbs*	245	7,145
Virginia suburbs**	222	6,415
*Included in Maryland state total.		
**Included in Virginia state total.		
FLORIDA	4,070	56,721
Jacksonville area	265	3,626
Miami area	1,151	16,986
Orlando area	195	2,389
Tampa-St. Petersburg area	679	10,457
Nonmetropolitan areas	1,780	23,263
GEORGIA	780	16,046
Atlanta area	419	9,303
Columbus area	66	1,722
Savannah area	113	1,449
Nonmetropolitan areas	182	3,572
IDAHO	46	1,167
ILLINOIS	3,205	55,071
Chicago area (Does not include Ind. suburbs)	2,807	45,777
St. Louis area	43	1,376
Nonmetropolitan areas	355	7,918
INDIANA	752	16,535
Chicago suburbs	199	3,070
Fort Wayne area	35	636
Indianapolis area	301	5,664
South Bend area	33	1,124
Nonmetropolitan areas	184	6,041
IOWA	319	8,635
Davenport area	40	1,676
Des Moines area	40	1,282
Omaha suburbs	21	412
Nonmetropolitan areas	218	5,265
KANSAS	376	9,728
Kansas City area	73	2,868
Wichita area	109	2,614
Topeka area	52	1,259
Nonmetropolitan areas	142	2,987
KENTUCKY	680	8,659
Cincinnati suburbs	47	528
Louisville area	345	5,422
Nonmetropolitan areas	288	2,709
LOUISIANA	634	11,482
Baton Rouge area	258	2,382
New Orleans area	189	4,702
Shreveport area	64	1,483
Nonmetropolitan areas	123	2,915
MAINE	38	1,197
MARYLAND	1,196	21,761
Baltimore area	771	11,438
Washington, D. C. suburbs	245	7,145
Nonmetropolitan areas	180	3,178
MASSACHUSETTS	913	21,745
Boston area	523	9,939
Springfield-Holyoke area	127	3,079
Worcester area	54	1,039
Nonmetropolitan areas	209	7,688
MICHIGAN	1,498	44,980
Detroit area	777	28,310
Flint area	55	3,825
Grand Rapids area	119	2,360
Nonmetropolitan areas	547	10,485
MINNESOTA	458	13,548
Minneapolis-St. Paul area	349	9,465
Nonmetropolitan areas	109	4,083
MISSISSIPPI	137	2,373
Jackson area	43	722
Nonmetropolitan areas	94	1,651
MISSOURI	577	15,051
Kansas City area	191	3,795
St. Louis area (Ill. suburbs listed under Ill.)	221	8,036
Nonmetropolitan areas	165	3,220
MONTANA	39	1,516
NEBRASKA	160	4,692
Lincoln area	26	991
Omaha area	98	2,588
Nonmetropolitan areas	36	1,113
NEVADA	71	2,110
NEW HAMPSHIRE	38	1,565
NEW JERSEY	1,810	33,575
Atlantic City area	48	1,053
New York City suburbs	1,123	17,828
Philadelphia suburbs	247	4,780
Nonmetropolitan areas	392	9,914
NEW MEXICO	316	4,723
NEW YORK	3,266	63,688
Albany, Schenectady, Troy	49	1,791
Buffalo area	233	9,275
New York City†	1,058	17,770
Suburbs of New York City	1,654	27,083
Rochester area	89	2,494
Nonmetropolitan areas	183	5,275
NORTH CAROLINA	472	9,997
Charlotte area	68	1,242
Greensboro-High Point area	85	1,599
Raleigh area	45	1,084
Nonmetropolitan areas	274	6,072
NORTH DAKOTA	36	1,749
OHIO	1,940	48,122
Akron area	80	2,925
Cincinnati area	269	5,595
Cleveland area	390	10,666
Columbus area	337	6,759
Dayton area	275	6,241
Toledo area	79	2,683
Youngstown area	118	3,595
Nonmetropolitan areas	392	9,658
OKLAHOMA	401	7,005
Oklahoma City area	88	2,651
Tulsa area	46	1,087
Nonmetropolitan areas	267	3,267
OREGON	242	6,038
Portland area	107	2,688
Nonmetropolitan areas	135	3,350
PENNSYLVANIA	1,686	32,666
Allentown-Bethlehem area	64	1,829
Harrisburg area	69	1,185
Philadelphia area (See New Jersey for Jersey suburbs)	508	14,818
Pittsburgh area	811	9,541
Nonmetropolitan areas	234	5,293
RHODE ISLAND	138	2,919
Providence area	130	2,712
Nonmetropolitan areas	8	207
SOUTH CAROLINA	166	4,003
Charleston area	39	1,401
Nonmetropolitan areas	127	2,602
SOUTH DAKOTA	49	1,439
TENNESSEE	598	11,425
Chattanooga area	53	1,500
Knoxville area	80	2,571
Memphis area	339	3,654
Nashville area	50	2,034
Nonmetropolitan areas	76	1,666
TEXAS	2,820	53,225
Beaumont-Port Arthur area	112	1,826
Corpus Christi area	57	1,644
Dallas area	443	9,073
El Paso area	122	2,727
Fort Worth area	213	4,541
Houston area	292	7,040
San Antonio area	266	4,297
Nonmetropolitan areas	1,315	22,077
UTAH	169	6,145
Salt Lake City area	103	3,649
Nonmetropolitan areas	66	2,496
VERMONT	1	181
VIRGINIA	981	22,155
Portsmouth-Norfolk area	199	3,047
Richmond area	92	3,169
Washington, D. C. suburbs	222	6,415
Nonmetropolitan areas	468	9,524
WASHINGTON	724	14,568
Seattle area	445	7,000
Spokane area	69	1,748
Tacoma area	87	2,416
Nonmetropolitan areas	123	3,404
WEST VIRGINIA	128	4,017
Charleston area	43	1,143
Nonmetropolitan areas	85	2,874
WISCONSIN	932	19,418
Madison area	77	1,478
Milwaukee area	543	8,379
Nonmetropolitan areas	312	9,561
WYOMING	31	710

†Covers dwelling units actually started.

"One of the first things I learned was this: you can always depend on a Field Control"

One of the first things an apprentice learns is that you don't *experiment* with a customer's comfort or money. The best products give the best value. And among draft controls that's Field. Dealers who learned that lesson themselves a score of years ago are now passing it on to tomorrow's contractors. We are proud to have earned the good will of so many dealers for so many years.

You have put your faith in **field** *more than 15,000,000 times*

FIELD CONTROL DIVISION of H. D. CONKEY & COMPANY, MENDOTA, ILLINOIS

Affiliates: CONCO BUILDING PRODUCTS, INC. • Brick, Tile, Stone CONCO MATERIALS HANDLING DIVISION • Cranes, Hoists

by
Milburn Petty

WASHINGTON—The government is close to approval of a guaranteed loan to help build a Giant Inch pipeline to move 500,000 barrels daily of gasoline, distillate fuel and other light products from the Gulf to the East Coast.

This $200,000,000 project is now being given a final going-over by Treasury Secretary Humphrey.

It has been proposed by American Pipe Line Corp., headed by Paul Ryan, New York.

ODM Director Flemming has declared that such a pipeline "would be very desirable from the standpoint of the defense mobilization program."

Since 1953, top military leaders have been urging that oil pipeline capacity totaling a million barrels daily should be available to the East Coast for use in an emergency.

Conversion of the "Inch" pipelines from gas back to oil would provide about half of this objective. Paul Ryan's American Pipeline would provide the other half.

Gulf-to-East Oil Pipeline Eyed

When the military endorsed the idea of a Giant Inch to the East Coast —not necessarily Ryan's project—in 1953, it brought vigorous opposition from both mid-western refiners and major companies on the East Coast. One argument was that it would "ruin" the tanker industry because a pipeline would be "cheaper."

Now, with a world scarcity of tankers and shipyards booked through 1961, the situation has changed.

Undoubtedly, an added reason for the military to renew its pressure for such a line is the tanker situation now. Ryan's line, operating in peacetime, would free many tankers for use other than in the Gulf-East Coast run.

Ryan's line, starting at Beaumont, Tex., and terminating at Newark, N. J,. would enable independent refiners at the Gulf to be more competitive in eastern markets. (While designed to move products, it would be readily convertible to crude if needed in an emergency.)

Warning to Oil Importers Renewed

Just before turning over the reins to Gordon Gray, who came over from the Pentagon to head the Office of Defense Mobilization, Flemming sounded a new warning to oil importers.

He said that the "desirable relationship" between imports and domestic crude production (presumably, the 1954 ratio) must be maintained or else the government will have to act under the 1955 trade agreements law to limit imports.

Oil Divorcement Hearings Set

Congressman James Roosevelt (D., California) plans hearings on oil marketing during April here and in Los Angeles, Houston, Cleveland, St. Louis and Denver.

Testimony is expected to center on the "need" for divorcement of oil marketing from the major companies, as proposed in legislation introduced by Roosevelt, although his group—the House Small Business Committee's distribution subcommittee—is not a legislative committee.

Among oil trade groups that Roosevelt invited in for pre-hearing conferences was the Chicago fueloil dealers association.

Fueloil Jobbers Seen Hit by S-11

More than a score of independent oil marketing groups, including the Independent Oil Men's Association of New England, are fighting desperately against the Kefauver-Patman Bill (S-11 and HR-11) to curb competitive pricing by repealing the Supreme Court's 1951 decision in the "Detroit Case."

James W. Scanlan, representing the New England IOMA, told Senator Kefauver's committee that this proposal "will definitely sound the death knell of branded gasoline and fueloil jobbers by making them legally too hot for major supplies to handle."

Senator Kefauver has charged the majors with a "secret conspiracy" to pressure their jobbers and dealers into opposing S-11.

Jobbers have indignantly denied these charges, pointing out that they have been fighting the S-11 philosophy —as embodied in the Federal Trade Commission's "Detroit Case" — for nearly ten years, because it constitutes a threat to the jobbers functional discount.

The Tennessee senator sought to turn his hearings into a probe of "oil lobbying," subpoenaing the files of 20 majors and the American Petroleum Industries Committee which apparently was active in organizing opposition to S-11.

Hearings on the companion bill, HR-11, sponsored by Rep. Wright Patman (D., Tex.) are slated for April.

Grand Jury Probes Oil Marketing

Federal grand jury investigation of the oil industry, now under way across the Potomac at Alexandria, Va., apparently is delving into so-called "market leader" oil pricing with scores of major company officials called in to testify.

Furore Over Oil Price Fades

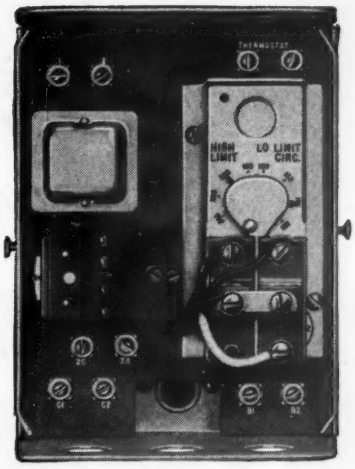
The Alexandria grand jury probe does not stem "solely" from the January rise in oil prices, Assistant Attorney General Hansen told Senator O'Mahoney's oil investigating committee. Hearings produced a lot of criticism of government officials for not doing "something" to prevent the price increases following in the wake of the Oil-for-Europe program.

Producers and refiners defended the price increases as necessary to meet rising costs and assure continued supplies.

Ike Urged to Support Gas Bill

Efforts are continuing to have President Eisenhower follow up his endorsement of legislation to free producers from federal control, while assuring "fair" prices to consumers for natural gas, with a plea for enactment of a specific bill.

It is generally agreed that without a personal plea by Ike, no gas bill is likely to be enacted.



New Honeywell Triple Aquastat-Relay, L8024 gives you—

- High limit control
- Low limit control
- Circulator control
- Circulator relay

HERE is the ultimate in Aquastats—the L8024 A & B for both oil and gas fired boilers.

Two temperature setting adjustments plus an adjustable differential all are housed in a single case and immersion well. Thus, setting is much easier and only one boiler tapping is required. The exclusive "built-in" relay turns on the circulator on call from the thermostat.

Like all Honeywell Aquastats, the L8024 gives fast-acting response, easy-to-read settings, compact design and ease of installation. Specify the L8024 A or B for all systems with tankless coils.

For complete information on Honeywell's complete line of Aquastats and Aquastat-relay combinations, call your local Honeywell office. Or write Honeywell, Dept. FH-4-34, Minneapolis 8, Minnesota.

The Honeywell Round—
world's most popular thermostat

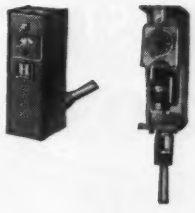
MINNEAPOLIS
Honeywell

112 offices across the nation

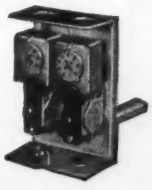
First in Controls

Other Aquastats Available From a Line of Over 20 Models

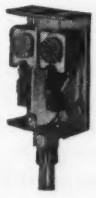
Get further savings—order your boilers already packaged with an Aquastat. Honeywell offers over 20 models for single functions or combinations of high limit, low limit and circulator control.



L4006 and L4007... These are single immersion Aquastats for use as low limit, high limit or circulator control.

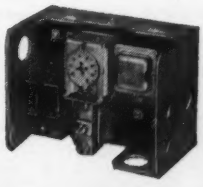


L4010... Dual function Aquastats for high and low limit control or circulator and high limit control.

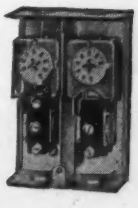


L4011... This is a single immersion Aquastat which offers low limit and circulator control, for vertical mounting.

L4008... For remote control. Available for low limit, high limit and circulator control.



L8048... Combination high limit and circulator relay for use on systems without tankless coils.



L6010—L6011... Triple Aquastats for combination high limit, low limit and circulator control.

Mr. Fuel Oil Dealer:

YOU'RE MILES AHEAD OF ALL COMPETITION WITH A

HY-TEST 303
DEHYDRATED FUEL OIL

FRANCHISE!

You get an exclusive 3-point new business builder unrivalled in the fuel oil industry!

1

You get **ADDITIVE HY-TEST 303**, *exclusively!*

Added to your present oil, it eliminates heat-robbing soot formation, gels, sludge and condensate. You sell a premium grade fuel oil at regular prices, offering your customers proven savings as high as 20% in oil consumption, trouble-free operation and freedom from corrosion!

2

You get the **ERIE DEHYDRATOR**, *exclusively!*

Every one of your trucks is equipped with a patented Erie Meter Systems, Inc. dehydrator & filter made solely for the Hy-Test 303 Corp. Dehydrating and filtering the oil on delivery is visible proof to your customers that they are getting cleaner, water-free oil!

3

You get **PLANNED MERCHANDISING**, *exclusively!*

The Hy-Test 303 merchandising program is planned for year-round hard hitting sales promotion! It includes: prepared newspaper, radio and television advertising, mailings, billboards, truck and sign decals, local and national publicity and service aids. In addition, our professional sales and marketing staff is always available to you for personal consultation.

For full details regarding an exclusive franchise in your area, write, wire or call —

JOHN VALK, Jr., President

HY-TEST 303 CORP.

5 Meadow Road, Rutherford, N. J.

The exclusive participation of the STEWART-HALL CHEMICAL CO., Mt. Vernon, N. Y. and ERIE METER SYSTEMS, INC., Erie, Pa., in the HY-TEST 303 franchise program is your assurance of highest quality control!

Names in the News

Ira Emmett McCabe, 62, a pioneer in the heating industry, died February 13 at Miami, Fla.

He was chief engineer and chairman of the board of The Mercoid Corp., Chicago, Ill., a company with which he had been associated for 36 years. He held over a hundred patents, many of which directly advanced the heating industry by providing safety and comfort features for both home and industrial applications. He was active in the affairs of the National Association of Manufacturers which honored him with its "Pioneers Build America" award in recognition of his achievements in science and invention. He also was a member of the Old Timers Club of the oilburner industry. Burial was at Mount Emblem Cemetery, Chicago.

Newly-appointed advertising manager for Controls Company of America, Schiller Park, Ill., is *Harry Welch*, former advertising manager of the company's A-P Controls Division, and of the Falk Corp. and Milwaukee Electric Tool Corp. In his new post, he will co-ordinate advertising for the following products, sales divisions and subsidiaries: Soreng Products, A-P Controls and Milwaukee Valve Co. He also will handle general corporate and International Division advertising.

.....SMOKE PROBLEMS?

TRY DELAVAN

Delavan nozzles give you clean, quiet fires . . . job after job!

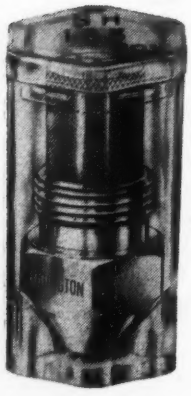
DELAVAN MANUFACTURING COMPANY • **WEST DES MOINES, IOWA**

fueloil & oilheat

3 points for PERFECT COMBUSTION WITH

Eddington

1. Truly clean oil . . .

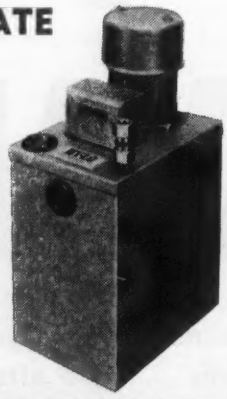


2. . . . the Right Spray . . .

3. . . and a Balanced Air Pattern!

CONDENSATE UNITS

Remove condensate automatically, from your central cooling jobs this Spring!



OHI

EDDINGTON
METAL SPECIALTY CO.
Eddington, Pennsylvania

Patrick N. Morgan has been named assistant to the vice-president and general sales manager of the heater and tank division, John Wood Co., Conshohocken, Pa. His immediate duties will be with organizational and administrative matters in conjunction with the division's expanding sales force and broader product lines resulting from the recent purchase of the Fluid Heat line of equipment. He was formerly manager of sales for heating and airconditioning products with Combustion Engineering, Inc.

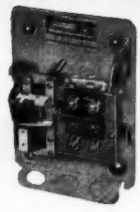
John W. Murray Jr. has been appointed general sales manager of the boiler division of Burnham Corp., Irvington, N. Y. He will be responsible for the supervision of all sales offices covering sales of cast-iron boilers and radiators, central cooling equipment and heating specialties. He formerly was marketing manager.

C. B. MacGlashan has been named sales assistant to the vice-president of Shell Oil Company's west coast marketing organization. He will direct over-all operations of the various products departments in the west. He formerly was manager for Shell's west coast fueloil and LPG department.

W. A. Matheson, for many years a leader in the oilheating industry, is now president of the Farm Equipment Manufacturers' Association. He is president of the Portable Elevator Manufacturing Company, Bloomington, Ill., makers of equipment for farm applications. While an oilheating man, he headed the Oil-O-Matic Co. for a number of years and for two terms was president of the Oil-Heat Institute of America.

(*Please turn to page* 146)

MERCOID®
MERCURY SWITCH
RELAYS



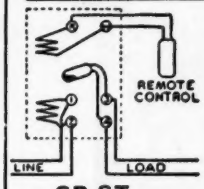
FOR VOLTAGES TO 440 ac or dc

NO SPRINGS OR CLAPPERS

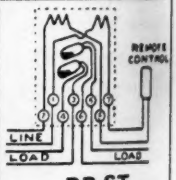
NO WELDING OF CONTACTS
NO MAINTENANCE REQUIRED

The operation of a Mercoid Transformer-Relay has several advantages over clapper type relays. In principle, it is a low voltage transformer—the two coils of which, operate as a repulsion relay. The primary coil is fixed in position and connected across the high voltage line. The secondary coil is movable and is connected to the control circuit. When the control circuit is closed, the secondary coil instantly moves upward by repulsion action, thereby operating the hermetically sealed mercury contact. When the control circuit opens, the secondary coil drops by gravity restoring the mercury contact to its original position.

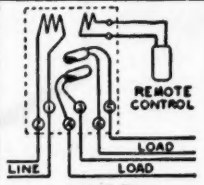
Hundreds of circuit arrangements are available—a few typical examples are shown below:



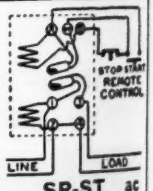
SP-ST ac



DP-ST dc



SP-DT ac

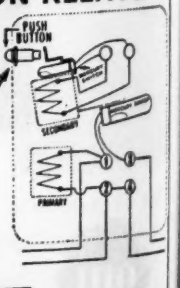


SP-ST ac start-stop

PUSH BUTTON RELAYS

Available for various circuit arrangements.

Push button to open circuit when relay is energized (circuit will automatically close when relay is de-energized.)



WRITE FOR BULLETIN NO. 31

THE MERCOID CORPORATION
4211 Belmont Ave., Chicago 41, Ill.

PARTNER for PROFITS

MODEL 150F with Universal Flange Mount
Available in 2 capacities: 0.65 to 1.50 G.P.H. and 1.35 to 2.00 G.P.H.

Flange mount this all-new U.S.-CARLIN Burner to the heating unit of your choice

U.S.-CARLIN's new Model 150 series Oil Burners are designed especially for flange mounting to any furnace, boiler, or water heater with minimum tube opening of 4¼" diameter. This compact, modern addition to the popular U.S.-Carlin line offers many outstanding features . . . highest efficiency . . . quiet, economical operation . . . compact design . . . easy, fast installation and servicing . . . opening for you a vast new field in the popular-priced home market.

Available with Carlin Head or High Temperature Combustion Head (Shell Head), these U.S.-Carlin flange mounted burners are designed and engineered as your PARTNER FOR PROFITS.

For more facts and figures on the new 150 series, contact your U.S.-Carlin Wholesaler, or write .

THEY OUTSELL BECAUSE THEY EXCEL

US CARLIN OIL BURNERS

YOUR WISE CHOICE: For the best, combine your furnace, boiler, or water heater with a modern, compact U.S.-Carlin 150 series burner.

RESULT: A combination that can't be beat . . . performance-wise . . . sales-wise . . . and profit-wise.

THE CARLIN COMPANY

WETHERSFIELD
CONNECTICUT

There is only ONE

Draft-O-Stat

and

HOTSTREAM

makes it!

DRAFT-O-STAT CONTROLS FLUCTUATING CHIMNEY DRAFTS!

MODEL "B"
Sizes 6" to 12"

DOMESTIC MODEL "A"
Sizes 14" to 20"

COMMERCIAL MODEL "AC"
Sizes 16" to 24"

INDUSTRIAL MODEL "I"
Sizes 24" to 36"

LOW COST DOMESTIC AUTOMATIC DRAFT REGULATOR
Sizes 3" to 8"

MODEL "M"
Sizes 4" to 8"

WRITE FOR COMPLETE Draft-O-Stat INFORMATION

THE HOTSTREAM HEATER CO.
6929 QUINCY AVENUE
CLEVELAND 4, OHIO

Chicago's king-size Expostion; Gordon is named ASHAE President

THE 13TH BIENNIAL International Heating and Air-Conditioning Exposition, held the week of February 25 at Chicago's International Amphitheatre, assumed record breaking proportions, featuring an all-time high of 500 displays and playing host to more than 30,000 visitors.

The displays, covering practically every phase of tempering indoor atmospheres in home, business and industry, were manned by an enthusiastic army of representatives whose demeanor was marked by an air of complete confidence. Aside from the many new product developments introduced—and which are covered in a feature article in this issue—the impression was inescapable that manufacturers and dealers alike regard the heating and airconditioning industry as one which has still to reach the peak of its expansion.

The Exposition took place during the same week that its sponsor, the American Society of Heating and Air-Conditioning Engineers, held its 63d annual meeting at the Conrad Hilton Hotel, Chicago. On February 26 at the Society's annual meeting the following officers were elected:

Peter B. Gordon, New York City, president; Elmer R. Queer, University Park, Pa., first vice-president; Arthur J. Hess, Los Angeles, second vice-president; Charles H. Pesterfield, East Lansing, Mich., treasurer.

Introduction and installation of the 1957 officers took place at the annual banquet on February 27. At the same time, John W. James received the group's past-president's award; M. K. Fahnestock, Urbana, Ill., research professor of mechanical engineering and chairman of the Physical Environment Unit, University of Illinois, received the Society's F. Paul Anderson Medal.

Thirteen technical papers and two symposiums highlighted the program's at three general sessions. Included among these were:

Earth as heat Source and Sink for heat Pumps, presented results of an investigation of the earth at shallow depths as a heat source and sink for the heat pump. Tests with experimental buried coils resulted in a buried coil design equation.

Revised winter outside design Temperatures, discussing in general terms the problems of developing winter design temperatures. Simplifying assumptions make possible the development of design values from available information, with climatological analysis applied on this basis to provide a range of design values offering the advantage of flexibility in application.

Members *of the council, American Society of Heating and Air-Conditioning Engineers, take time out from their annual meeting in Chicago for a quick preview trip of the International Heating and Air-Conditioning Exposition.*

Get set to make more money... with

Thatcher

CUT HERE

HERE'S FRONT LINE SALES SUPPORT!

Clip this out . . . display it . . . hang it up NOW. Watch what happens when folks know *you* handle Thatcher—the name that's stood for quality continuously since 1850.

IF YOU'RE IN THE MARKET FOR A BETTER FURNACE

READ THIS

GET A

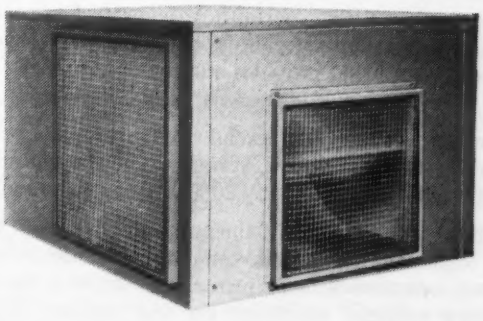
Thatcher

IT'S GUARANTEED FOR 10 YEARS

AND . . . YOU CAN ADD SUMMER COOLING ANY TIME . . . WITH THIS THATCHER AIR CONDITIONER

It's completely air-cooled . . . uses no water! Designed for easy installation with the heating unit.

You get winter warmth *and* summer air conditioning—all from one central system!



Get your Thatcher heating and cooling units here... at year-round comfort headquarters

"Since 1850"

Thatcher

FURNACE COMPANY, GARWOOD, NEW JERSEY

Long-established customer acceptance and satisfaction, plus competitive pricing . . . and active dealer support . . . make Thatcher your money-making line.

You are invited to qualify for a Thatcher dealership. Write today.

Boilers • Oil Burners • Furnaces • Air Conditioners

fueloil & oilheat

Greatest Draft Regulator made . . . tested and proven better!
This is our new Commercial Model 8 different sizes . . . priced right too!
FEATURING LOCKED-IN TRUE BALANCE
WITH EXCLUSIVE ACRO-LOK®
Patent Pending
Can be installed easier . . . in 25% less time!
Quieter, more accurate and efficient .

STEINEN Introduces New Complete Line of Draft Regulators 6" thru 32"

NEW DESIGN, NEW PACKAGING, NEW EXCLUSIVE FEATURES

Now . . . after three years of engineering research and development . . . a complete line of *Residential and Commercial Draft Regulators* that are vastly superior to *any* other make.

Features of the Residential sizes include One Calibrated Scale — from .02" to .08", permitting accurate horizontal, vertical or diagonal installation without changing parts and Push-Pull Slide Bar Control that provides automatic balance — greater sensitivity at every setting.

Features of the Commercial sizes include Locked-In True Balance as a result of exclusive Acro-Lok and the unique design and packaging that cuts weight by 20% and saves as much as 40% in space.

These are only four of the combined fourteen features that make it important that you investigate and compare this new line. Your own comparison will prove that there is no finer constructed, more efficient regulator on the market. Write for complete information today!

40% SAVING IN SPACE *Here is dramatic evidence of the saving in space resulting from new unique packaging of all Commercial Models —20% lighter . . . cuts shipping costs.*

STEINEN **WM. STEINEN MFG. COMPANY**

Since 1907

Member of O. H.I.

44 Bruen Street, Newark, N. J.

Warehouses in Boston, Chicago, Detroit, Minneapolis, New York, Philadelphia and Portland, Oregon

Draft Regulators • Oil Burner Nozzles • Nozzle Adaptors Kits & Strainers • Flame Mirrors • Electrode Assemblies

Copyright 1957 - W. S. Co.

The paper, resulting from studies of the Technical Advisory Committee on Weather Data, has an ultimate objective of making revised data available.

Report on Pulsation

Pulsations in residential heating Equipment, presenting preliminary results of research conducted at Batelle Memorial Institute, jointly sponsored by ASHAE, AGA and OHI. The paper defined the fundamental nature of the pulsations and explored methods for suppressing them. A more detailed report on this project will appear in the May issue.

Cold wall Effects in a ceiling-panel-heated Room, concerning the effect of a cold wall or window and a heated ceiling panel on room-air temperature, mean radiant temperature and air motion. Generally, in the living space, variations in room-air temperatures were small; room-air velocities were negligible except near the floor; mean radiant temperatures were higher than the room-air temperature.

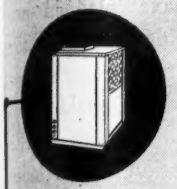
Performance of covered hot water floor Panels, covering investigations at the University of Illinois under I-B-R sponsorship. This is Part II on room conditions; Part I explored effects of various floor coverings on the thermal characteristics of floor panels. Studies of room conditions included consideration of room-air temperature and velocity; slab, floor covering, wall, glass and ceiling surface temperatures; heat flow from panel to room and relative humidity in the test rooms.

Thermal Design of warm water concrete floor Panels, presenting a simplified procedure for use in residences and commercial buildings. Contains step-by-step procedures for panels installed slab-on-grade and on intermediate slab.

The next meeting of the Society will be its semi-annual meeting at Murray Bay, Quebec, June 24 to 26, 1957; the 64th annual meeting takes place in Pittsburgh, Pa., January 27 to 29, 1958.

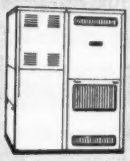
The 14th International Heating and Air-Conditioning Exposition is scheduled for Philadelphia in 1959; the 2d Southwest Exposition is to be held in 1960 in Dallas.

AIR COOLED

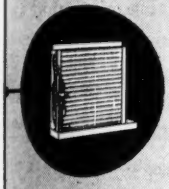


The advanced 2, 3 or 5 Ton Luxaire Air Cooled Refrigeration Unit (above) is constructed for either outdoor or indoor installation. The same Condenser-Compressor Unit can be used in connection with any of the units shown at right — when attached to . . .

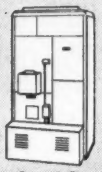
2 or 3 Ton Combination Luxaire Year 'Round Air Conditioner Gas or Oil Fired



5 Ton Combination Luxaire Year 'Round Air Conditioner

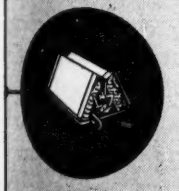


The Cooling Coil which is installed within the furnace cabinet of the Combination Year 'Round Air Conditioner — or . . .

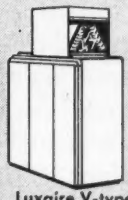


2 or 3 Ton Counterflow Luxaire Year 'Round Air Conditioner Gas or Oil Fired

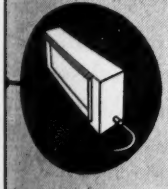
Luxaire V-type Add-On Cooling Coil installed atop Upflow Winter Air Conditioner



The V-type Cooling Coil, which is installed in the discharge plenum of an Upflow Furnace — or . . .

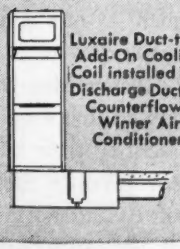


Luxaire V-type Add-On Cooling Coil installed atop Basement-type Winter Air Conditioner



The Duct-type Coil, which is installed in the discharge trunk of a Horizontal or Counterflow Furnace.

Luxaire Duct-type Add-On Cooling Coil installed in Discharge Trunk of Horizontal Furnace



Luxaire Duct-type Add-On Cooling Coil installed in Discharge Duct of Counterflow Winter Air Conditioner

WITH Luxaire®

YOU CAN MAKE A Bigger Variety of COOLING INSTALLATIONS WITH *Fewer Units*

NOW . . . even MORE COMPETITIVE in PRICE!

Whether you install the complete Combination Year 'Round Air Conditioner or an Add-On Cooling Unit, you'll be money ahead with Luxaire.

Luxaire Cooling Units give you maximum installation flexibility, while making it unnecessary for you to carry a large and costly stock. With the Luxaire Air Cooled Circuit, the same Condenser-Compressor Unit can be used in any variety of installations—with the Combination Year 'Round Unit, or with an Add-On Cooling Coil combined with any type of centrally installed forced air furnace. Luxaire Water Cooled Circuits are likewise adaptable for installation in the Combination Unit, or as an Add-On Unit with a furnace.

But Luxaire has not stopped here. Luxaire Cooling Units have the same rugged, trouble-free design as Luxaire Heating Units. Compressors are heavy and durable, and are readily serviced in the field, All Luxaire Cooling Circuits are warranted under one of the most liberal Five Year Protection Plans in the industry.

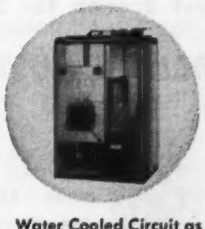
The price of this excellence is competitively low—made even more competitive by recent reductions.

If you are looking for a way in which to become more competitive in the cooling business—or for the right line with which to enter the cooling field in a competitive way—contact your Luxaire jobber, today.

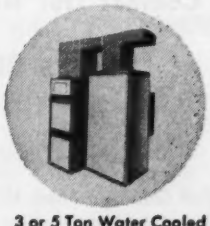
WATER COOLED

The unsurpassed Luxaire Water Cooled Refrigeration Circuit is a complete unit, charged with Freon and sealed at the factory. When used with the Luxaire Combination Year 'Round Unit, it is contained completely within the furnace cabinet. When used as an Add-On Summer Air Conditioner, it is housed in its own compact cabinet and installed side-by-side with the furnace.

Luxaire Water Cooled Refrigeration Circuit for Combination Year 'Round Air Conditioner



Water Cooled Circuit as installed in Year 'Round Air Conditioner— 2, 3 or 5 Ton Capacity



3 or 5 Ton Water Cooled Add-On Unit as installed with Winter Air Conditioner

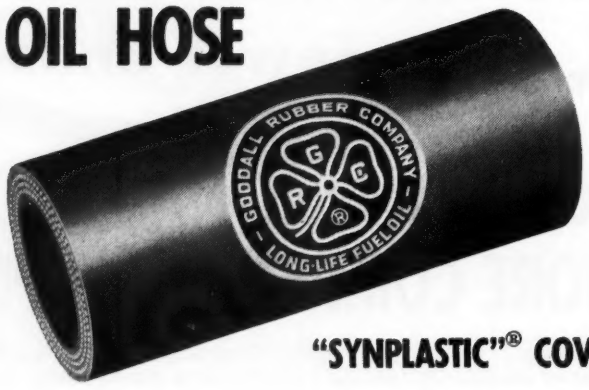
THE Luxaire — C. A. OLSEN MANUFACTURING COMPANY . . ELYRIA, OHIO

HEATING & AIR CONDITIONING UNITS

fueloil & oilheat

Year-Round Savings
IN DELIVERY and REPLACEMENT COSTS

With GOODALL "LONG-LIFE" FUEL OIL HOSE



"SYNPLASTIC"® COVER

You can *always* rely on "Long-Life" Fuel Oil Hose for quick, low-cost deliveries and *additional* savings through longer service between replacements.

Because "Long-Life" is light in weight and extremely flexible, the hose is easier to carry out and re-reel. This means more stops per truck per day, more fuel oil delivered, and less fatigue for the driver.

The strong, durable molded-and-braided "Long-Life" construction assures extra long hose life under all conditions of weather and rough handling . . . replacement costs are reduced to the minimum.

Sizes 1″ to 1½″. Maximum lengths of 175 feet. Brown "Synplastic" (R) cover.

Contact Our Nearest Branch for Details and Prices

"If it's GOODALL, it MUST be Good!"

Standard of Quality—Since 1870

HOSE • BELTING • FOOTWEAR • CLOTHING
AND OTHER INDUSTRIAL RUBBER PRODUCTS

GOODALL *Rubber Company*

GENERAL OFFICES, MILLS and EXPORT DIVISION, TRENTON, N. J.
Branches and Distributors Throughout the United States and in Canada

1,387 Mueller Dealers in merchandising Survey

"DEALERS who have planned programs of advertising, merchandising and servicing will receive our support and protection," said Donald Davidson, field sales manager for Mueller Climatrol Corporation, at an industry meeting in Chicago February 25. This statement was a result of a survey made by Mueller Climatrol sales representatives of 1,387 heating and air conditioning dealers. Using a "Prospective Customer Check List" the company gathered general information about the dealer, the facilities which he offered or had, his advertising and promotional background and his financial situation.

Survey Results

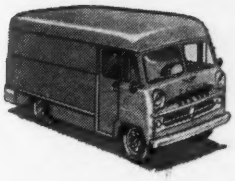
The survey disclosed that, in general, dealers were not well balanced in type of business, but way overboard on new-house construction installations or old-house or commercial without a proper balance between the three. It showed that 8 out of 10 dealers do not have show rooms; 6 out of 10 have no warehouse or storage facilities; and 7 out of 10 do not offer design layout service. Only 3 out of 10 make time payment sales. Regarding the dealers personally, the survey pointed out that 7 out of 10 have not attended any cooling school; and that 9 out of 10 did not have their men in uniform. "This latter information is definitely a sore point with us," asserted Davidson. "We know that men in our industry are trained, skilled workmen, yet such non-skilled industries as dry cleaning, laundry, milk, and sanitation require their men to wear uniforms to present a neat, successful appearance. Why should the men in our industry have less?" he queried.

Advertising-wise the survey revealed that 4 out of 10 dealers did not identify their building or trucks with the product they were selling; 5 out of 10 had no identity on their trucks at all; and 6 out of 10 spend less than $300 a year on advertising of any sort.

In the manufacturer-to-wholesaler-to-dealer chain, the dealer assumes an importance that cannot be overempha-

DODGE *Power Giants*

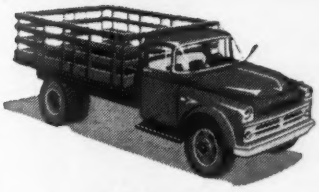
Dodge T700
Tandem



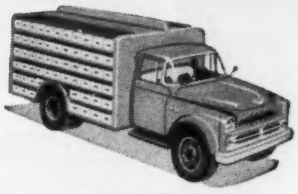
Dodge P300
Forward-Control

Dodge 600
with Van Body

Special bodies fit readily
on any Dodge chassis



Dodge 500
Stake



Dodge 400
with Beverage Body

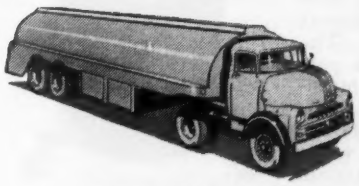
MOST *POWER* OF THE LOW-PRICED 3

. . . In every weight class

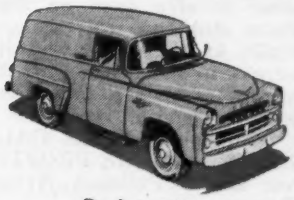
Dodge Power Giants give you an extra bonus of power.

From 204-hp. pick-ups to 232-hp. tandems, Dodge V-8's outpower the "other two" by as much as 31%. This extra power reduces engine strain, saves wear. What's more, Dodge engines, both V-8's and 6's deliver full power on regular gas.

Dodge hauls more payload, too . . . up to one-third more. And Dodge offers major advantages in driving ease, cab comfort and prestige-building good looks. See for yourself. Your Dodge dealer has a Power Giant to meet every trucking need.



Dodge C.O.E. 700
Tractor

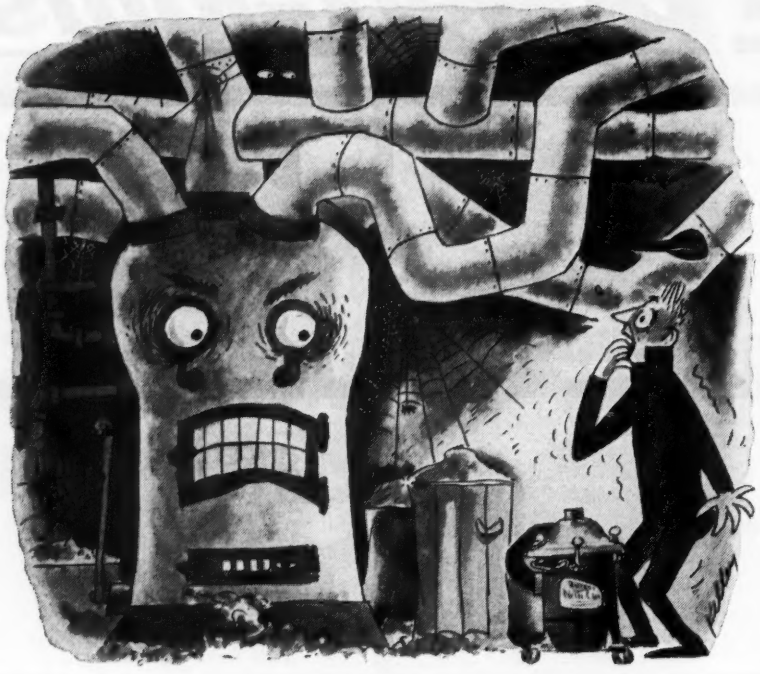


Dodge 100
Panel

Collect Your Extra Dividends
April is Extra-Dividend Month

Get extra dividends in power, extra dividends in payload, extra dividends in performance . . . plus a special extra-dividend deal on a new Dodge Power Giant.

DODGE TRUCKS WITH THE *FORWARD LOOK*



"No need to turn back
with a Never-Clog Vac"

**end costly clogging
use a dependable**

PULLMAN
NEVER-CLOG®
VACUUM CLEANER

Your Pullman Never-Clog vacuum cleaner gets you in and out of the cellar fast without *any* costly delays, because it *never* clogs under any conditions. In fact, the Pullman Never-Clog is *guaranteed never to clog* even on the toughest jobs where stubborn soot, scale, ash and debris would knock out any ordinary vac. The secret's in the Never-Clog filter bag, a permanent secondary filter that *always* maintains full suction.

You make MORE CALLS . . . MORE SALES . . . MORE PROFITS per day when you use a Pullman Never-Clog Vacuum Cleaner.

THE WORLD'S LEADING SPECIALISTS
IN FURNACE VACUUM CLEANERS.

Pullman

FOH-3

Pullman Vacuum Cleaner Corp.
25 Buick Street, Boston 15, Mass.

Rush me complete details on the Pullman Never-Clog Vac, so I can make MORE CALLS . . . MORE SALES . . . MORE PROFITS per day.

Name: _____

Company: _____

Street: _____

City: _____ State: _____

ACT TODAY . . . MAIL THIS COUPON!

FREE ACCESSORY KIT!
* 27" metal crevice tool.
* Power blower nozzle.
* Handy scraper tool.
* Flexible metal asbestos packed hose.
* 10' x 1½ I.D. heavy duty hose.

sized, Davidson said. The dealer provides the display space and selling push for the manufacturer's product, without him the distribution chain is a series of circles. It is known throughout many industries that 20 per cent of the dealers are doing 80 per cent of the business. Mueller Climatrol wanted to know why. With the aid of the survey they analyzed the dealer's operation, and the company gained information to aid their sales, production, advertising and merchandising departments.

Frank Nunlist, Mueller's executive vice-president, conducted the meeting in connection with the ASH&AE heating exposition.

To help dealers sell "health and comfort" a pert four-year-old has been put to work. Named Cathy Climatrol the little girl will spearhead a drive to convince the consumer market of the real importance of adequate heating and cooling in the home.

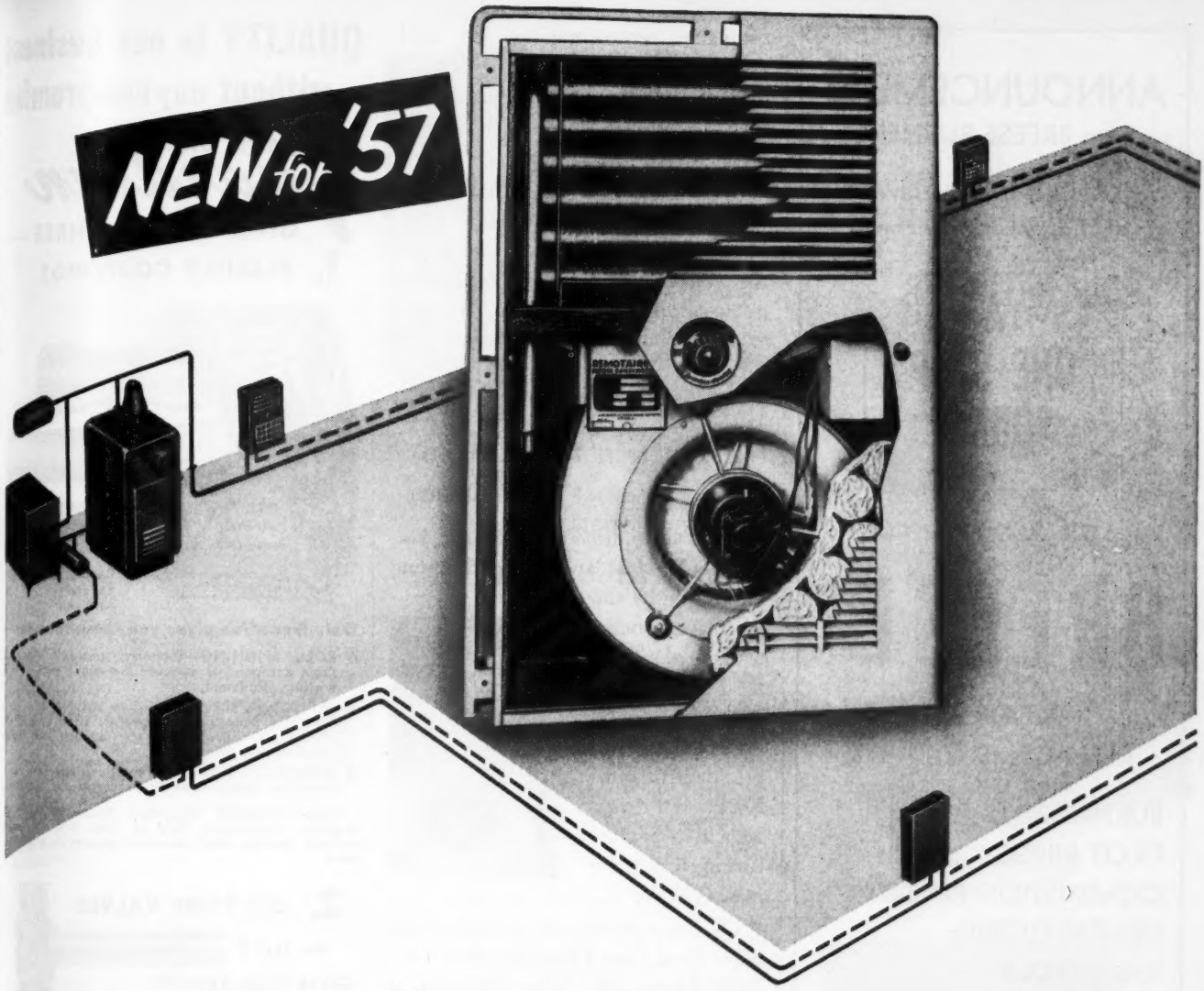
The campaign grew out of surveys revealing that the average homemaker and her husband had little knowledge of what real comfort cooling and heating can mean to the family. Cathy adds the human element to the advertising stressing the health aspects of proper indoor climate.

❖

Bell & Gossett sponsors Visit to Factory during Show

A MORNING and afternoon visit to Bell & Gossett's Morton Grove, Ill. factory highlighted a trip along the "Hydra-Flo Route to Heating and Cooling" for more than 400 heating and airconditioning dealers, engineers and wholesalers. Held on February 26, the junket came during the International Heating and Air-Conditioning Show in Chicago.

The special train ride and plant tour began at Chicago's Union Station when the group boarded a special Milwaukee Road train marked the "B & G Line." After disembarking at a special siding at the plant, the group was greeted officially by E. J. Gossett, chairman of the board; R. E. Moore, president and C. E. Pullum, executive vice-president and other B & G officials. Divided then into convenient groups,



AMERICAN-Standard AIR CONDITIONING

ARCOLEADER OIL HEATING UNIT
PAS WATER CHILLER . . .

Arcoleader Packaged Unit—Packaged, pre-wired, compact unit for extra fast installation—factory-installed I-W-H rated water heater—vertical design cast iron sections with wet base—new PH Burner needs one adjustment—stainless steel combustion—I-B-R rated from 500 to 865 sq. ft.

PAS Chiller – compact, quality, packaged unit – measures only 26 1/16" high x 27¼" wide – assembled at factory, a cinch to install – hermetically sealed compressor provides dependable performance – water-cooled condenser, 2, 3 and 5 hp sizes. Air cooled models in 2 and 3 hp sizes.

* * *

For more information on the new Residential Remotaire year round air conditioning system, write to: AMERICAN-STANDARD, PLUMBING & HEATING DIVISION, 40 W. 40th St., New York 18, N. Y.

Year round central home air conditioning system — cools with chilled water, heats with hot water . . .

- New Residential Remotaire system features customer-appealing individual room temperature control at no extra cost
- Easily installed in any type home – eliminates "hard to condition" areas. Heated and chilled water circulates through single flexible piping system – no time-consuming ductwork to install – compact boiler-chiller may be placed in basement, utility room or even the garage
- Two practical sizes – 150 cfm for one stud space and 300 cfm for two stud spaces – available in both recessed and free-standing models
- Factory assembled with motor and control leads pre-wired for fast installation
- Exclusive trim shield permits entire unit to be quickly nailed to studs – protects paint and plaster line
- May be installed for heating only with cooling easily added

AMERICAN-Standard

PLUMBING AND HEATING DIVISION

ANNOUNCEMENT
from BREESE BURNERS

Leading Manufacturer of Vaporizing Burners

A ONE STOP SOURCE

FOR ALL GENUINE

BREESE*

REPAIR and REPLACEMENT PARTS

BURNER POTS
PILOT RINGS
COMBUSTION RINGS
DRAFBOOSTERS
RHEOTROLS*
Plus Many Other Items

Orders Shipped Within 24 Hours After Receipt.

BREESE BURNERS Incorporated

OIL-FIRED BY BREESE — The Symbol of BETTER HEAT

Columbus 8, Ohio Sante Fe, New Mexico

Clip This Coupon To Your Letterhead To Receive Free Information

Gentlemen: Please Send Me Free . . .

☐ ILLUSTRATED PRICE LIST

☐ ILLUSTRATED POT BURNER SERVICE NOTES.

I AM A ☐ DISTRIBUTOR ☐ SERVICEMAN ☐ DEALER

NAME .....

FIRM .....

ADDRESS .....

CITY .....

*TM Reg. U. S. Pat. Off.

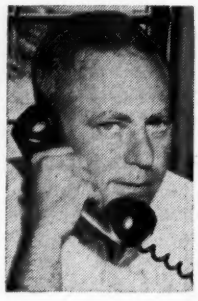
company representatives led each group through an extended tour of the plant. The tour continued until early afternoon, after a break for lunch.

Bell & Gossett, which operates other plants in Chicago, Midland Park, N. J. and Longview, Texas, produces the Hydra-Flo line of circulating pumps and other specialties for hot water heating and chilled water cooling.

❖

G. M. Marin to chairman 22nd Oil Heat Exposition

APPOINTED chairman of the 22nd National Oil Heat and Airconditioning Exposition by the executive committee of the Oil-Heat Institute of America, Inc., is G. M. Marin, president of Sun-Ray Burner Manufacturing Co., Jamaica, N. Y.



Of the exposition to be held in the New York City Coliseum June 9-12, 1958, Marin said: "Our exposition at the Coliseum in 1956 was the best one ever sponsored by the Institute. In 1958, we shall have additional space for exhibitors. Members of the committee already are at work on hotel accommodations, floor layout, promotion and other details."

Marin, a member of the executive committee and board of directors of the Institute, has had extensive experience in OHI expositions and conventions throughout the years.

❖

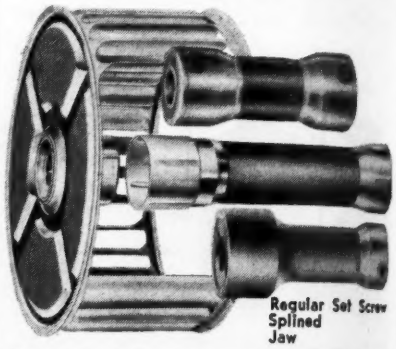
Warm Air Heating Assn. Convention set June 5-7

THE SUMMER CONVENTION of the National Warm Air Heating and Air Conditioning Association will be held at the Fairmont Hotel, San Francisco, Calif., June 5-7. Convention sessions will be held the afternoons of the 5th and 6th and the mornings of the 6th and 7th. Special events have been arranged for the ladies.

QUALITY is our business .. without *any* compromise

AND ONLY *Guardian* GIVES YOU ALL THREE —

1. FLEXIBLE COUPLINGS



Only Guardian gives you these features—

- ROLL SPINNING—Exclusive process joins all three components at one time—while in final operating alignment.
- BRAIDED RUBBER—Ground to absolute true concentricity. Furnished in BUNA-N TUBE and NEOPRENE COVER. Lateral and angular alignment requirements fully met.
- ONE-PIECE DESIGN—Minimizes assembly and handling costs. Made to exact lengths required.

Over 5,000,000 Guardian couplings are on original equipment. This is your assurance of highest quality and universal acceptance in the field.

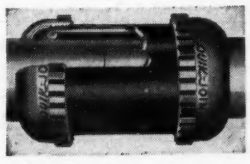
2. OIL TANK VALVES

No. 1910 B

Check These Superior Guardian Features—

- Metal-to-metal seating.
- Highest quality machined bar stock.
- Greater wall and body strength.
- Fusible linkage available in all designs.
- Valve designs for every type of installation.

3. QUIK JOINT



Steel compression fittings for connecting steel pipe.

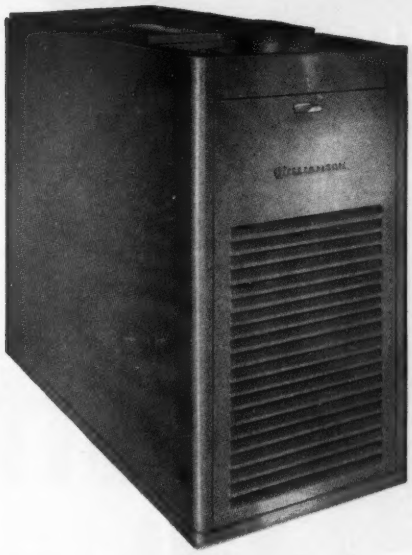
Patent No. 2,685,460

- Eliminates threading of pipe.
- Decreases cathodic corrosion and electrolysis.
- Guaranteed for pressure up to 2000 P.S.I.
- Allows 7° angular deflection.
- U.L. approved for oil and gas.

Write for free descriptive literature.

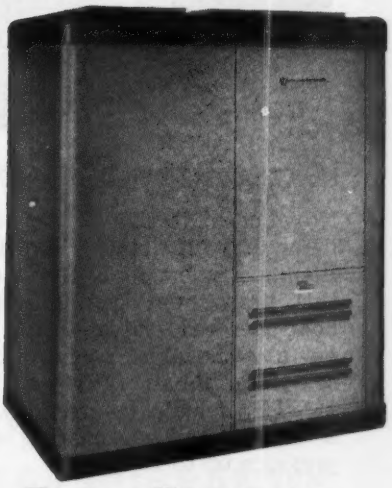
Guardian PRODUCTS CORP.
COUPLING DIVISION

Dept. F-47 1215 East Second Street
MICHIGAN CITY, INDIANA

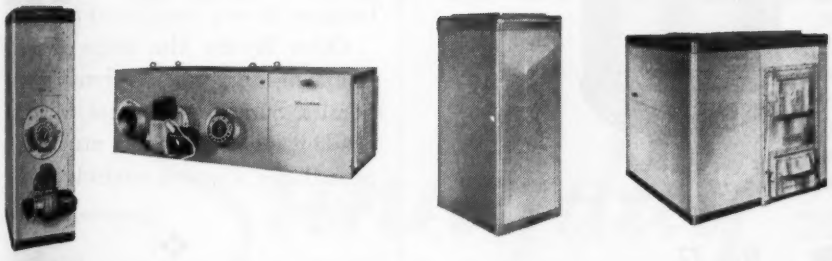


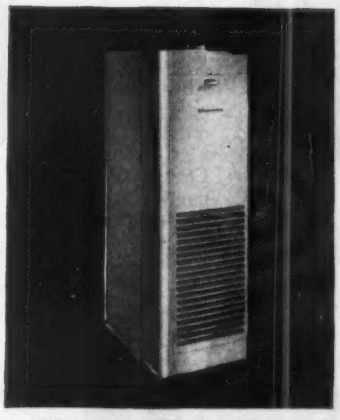
Blue-Gray Metalescent Finish

- *New Designs*
- *New Models*
- *New Colors*

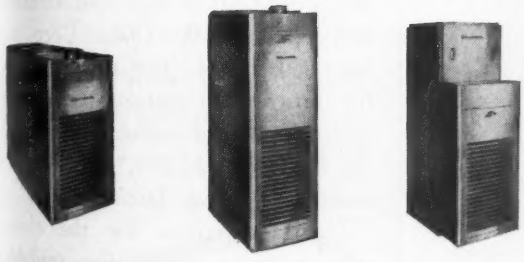


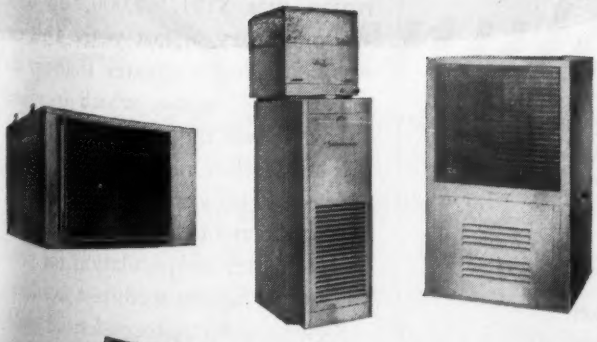
Two-tone Hammer Finish Green





Gleaming White Enamel





As Advertised in Leading Magazines

THE WILLIAMSON COMPANY

3312-B-4 Madison Rd. Cincinnati 9, Ohio

Gentlemen:

Please send me information on the following:

☐ Heating Equipment ☐ Cooling Equipment
☐ Duct, Pipe and Fittings

Name.....*Title*.....

Firm.....

Address.....

City.....*Zone*.....*State*.....

AIR IS THE VILLAIN!

in hot water heating or chilled water cooling systems

MAID-O'-MIST *Automatic* AUTO-VENTS

CONTINUOUS VENTING ACTION
ENDS CIRCULATION WORRIES!

No. 7 AUTO-VENT

No wonder Number 7 is a big favorite with both heating and air-conditioning experts! Fully automatic, this brass vent has a self-closing, float-operated valve — all mounted on a removable bonnet for quick servicing. Small (4⅜" x 2¼" with ⅛" I.P. female connection) it does a big job of eliminating air. For pressure up to 75 lbs.

Float Type

No. 67 AUTO-VENT

Is the space limited? Then No. 67 is your Auto-Vent! Its overall size is only 3 3/16" x 1½" with ⅛" I.P. male connection. Takes 30 lb. pressure.

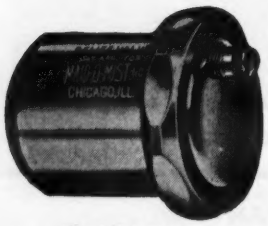
Float Type

No. 72 AUTO-VENT

A fast-venting valve of the expansion type for convectors, baseboard and free-standing radiation. For vertical or horizontal mounting. Size 1¼" x ½" with ⅛" I.P. male connection. Disc dries quickly because of immediate drainage.

No. 27 AUTO-VENT

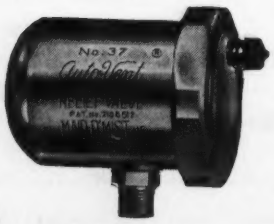
Smaller sized (3" x 2½") for horizontal mounting with ⅛" I.P. female side connection. Use on convectors, radiant coils, etc. Takes up to 50 lb. pressure.



Float Type

No. 37 AUTO-VENT

Similar to No. 27, but designed for horizontal mounting with ⅛" I.P. vertical male bottom connection. Size 3" x 2½". 50 lb. pressure.



Float Type

Get full information from your jobber or write for catalogue, today!

MAID-O-MIST Inc.

MAID-O'-MIST, Inc.

3217 NORTH PULASKI ROAD · CHICAGO 41, ILL.

Two new film Strips added to OHI Library

TWO NEW FILM strips have been added to the film strip library of the Distribution Division, Oil-Heat Institute of America, Inc., bringing the total to nine.

The new strips are "What about Thermostats," produced by Penn Controls Co., and "The Best Years," produced by FUELOIL & OIL HEAT. The first covers the entire field of function, application and adjustment of thermostats and runs 42 minutes.

"The Best Years" is the story of the good future awaiting fueloil and oil-heating equipment dealers throughout the country. It tells of the resurgence of oil as a fuel in certain markets and demonstrates that the future in this business is very sound and promising.

Other library film strips cover the following subjects: Webster pumps, nozzles, Sundstrand pumps, Minneapolis-Honeywell controls; management procedures, General controls and humidifiers.

❖

Total U. S. Contract award Figure compiled by Dodge

INAUGURATING an expanded statistical service, the F. W. Dodge Corp. has compiled, for the first time, statistics for construction contracts awarded in the entire 48 states which show a total for January of $2,299,554,000, an increase of 4% over January, 1956.

Contract figures for the eleven western states, never before available, indicate that the January total for that region was $521,264,000, up 13% above January of last year. This rise was considerably greater than in the remaining 37 states, which increased only 1% over the same period.

The western region accounted for 23% of total construction contracts during the month. This proportion has been a matter of speculation for years but, actual figures were not available.

Contracts for non-residential buildings in the United States totalled $914,168,000 in January, an increase of 16% over January, 1956. Residential building contracts totalled $816,566,000, an increase of 1% over last January. However, the residential in-

(Please turn to page 46)

CRANE

2 hottest names in oil-fired equipment!

Sunnyday

BOILERS WITH 20-YEAR GUARANTEE

Sunnyday boilers are so dependable Crane guarantees the sections a full 20 years. Only Crane gives you such a big selling feature.

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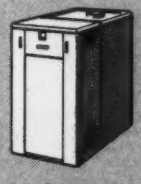

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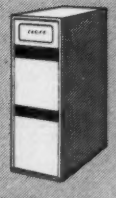
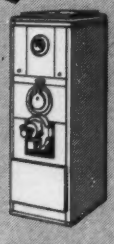
A complete line! "Add-on" and year-'round air conditioning, too. Priced right, nationally advertised, and backed by the famous CRANE name.

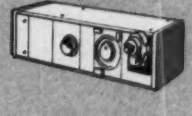


SUNNYLAND HI-BOY FURNACE



SUNNYLAND COUNTERFLOW FURNACE

SUNNYLAND BASEMENT FURNACE



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FOR FULL DETAILS SEE YOUR CRANE BRANCH OR CRANE WHOLESALER

CRANE CO. 836 S. Michigan Ave., Chicago 5 • VALVES • FITTINGS • PIPE • PLUMBING • KITCHENS • HEATING • AIR CONDITIONING

NOW a complete line of All New

3-way sales appeal:

1. **HIGH EFFICIENCY**
2. **COMPACTNESS**
3. **LOW COST**

Small, rugged, compact. Horizontal tube construction combines with new front placement of controls to concentrate maximum heating capacity into minimum space. Competitively priced, with unique features to give you a big sales advantage.

fast, easy installation to add to your profits!

Move it in . . . hook it up . . . heat's on! Here's the last word in easy, speedy installation. Factory assembled and pre-wired, with all side wiring concealed. All controls at front. No side access required. All white, baked enamel jacket. The Suburban requires exceedingly small installation area—less than 4 sq. ft. for the 19PC and 6.8 sq. ft. for the 41PC—allows quick and easy installation.

NOW available in 4 sizes

MODEL #	HEIGHT	WIDTH	OVERALL LENGTH	NET S.B.I. WATER RATING	INSTANTANEOUS DOMESTIC HOT WATER COIL (stand. equ.)
19PC	33	20	28½	87,000 BTU	3 gpm
24PC	33	20	34	108,000 BTU	3 gpm
32PC	37½	23½	34	149,000 BTU	4 gpm
41PC	37½	23½	41¾	189,000 BTU	5 gpm

Ready for immediate delivery-

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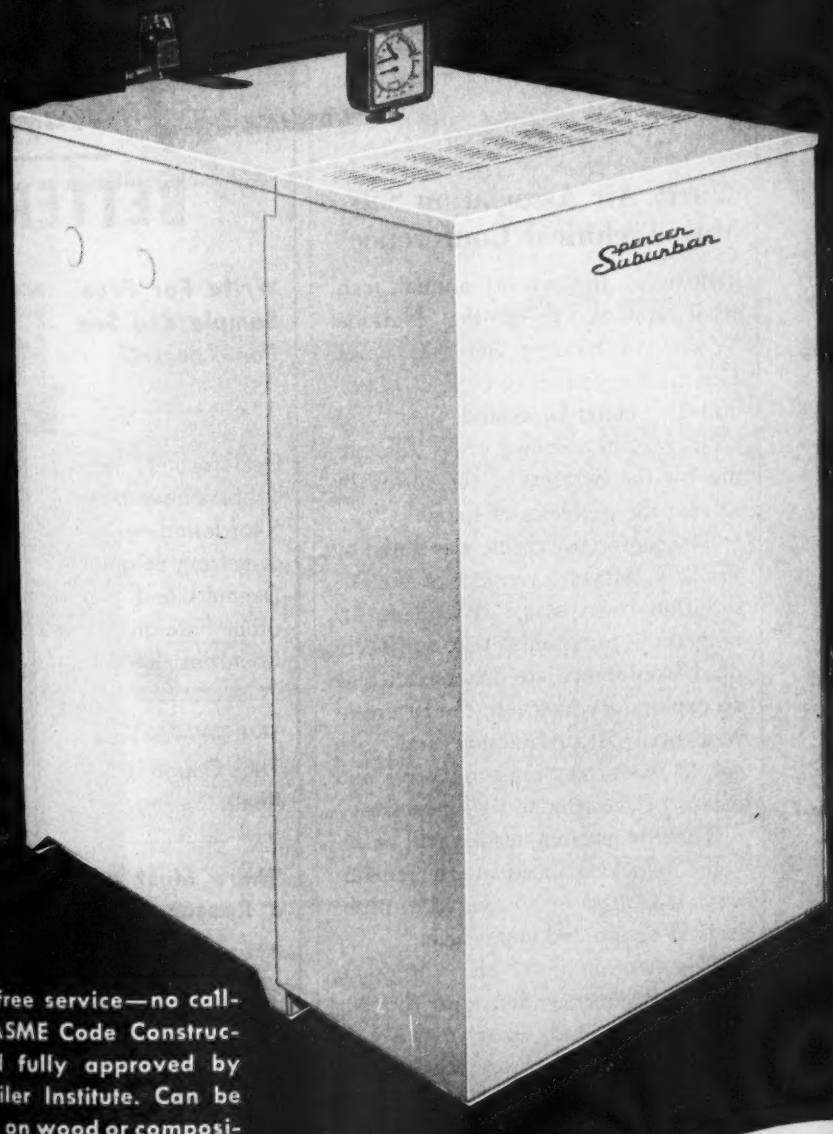
SUBURBAN

RESIDENTIAL OIL-FIRED, BOILER-BURNER UNITS
for modern heating and year-round domestic hot water



Trouble-free service—no call-backs. ASME Code Construction and fully approved by Steel Boiler Institute. Can be installed on wood or composition floors. Ideal for utility room.

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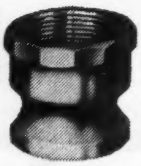

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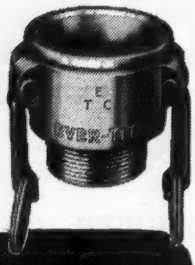

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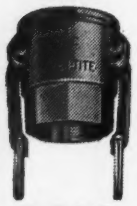
QUICK COUPLINGS

You save *time* and *money* when you use Ever-Tite Couplings because they speed-up deliveries, prevent leakage, and save wear on equipment.

Tightness is predetermined in manufacture by positive gasket compression. There are no sliding rings—no springs, ball bearings, snaps or lugs to fit. You just slip the coupler over the adapter, and close the handles.

If you want to get the *most* in coupling value get *Ever-Tite.* The Ever-Tite Trademark is a hallmark of dependability in fittings for the petroleum industry—proved by 18 years of pre-eminence. Ask your distributor now.



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Dust Plug

Dust Cap

EVER-TITE Dust Protectors

Every EVER-TITE saves time and money

crease was in dollar terms only; the number of dwelling units amounted to 64,313, a decline of 9% below the 1956 period.

The western region, according to the Dodge report, showed a more buoyant construction picture than the remainder of the nation in most major categories. Instead of a decline in heavy engineering contracts, as reported for the national total, the eleven western states' January total was above January of last year. Non-residential building increased in dollar volume more rapidly than in the nation as a whole. While the dollar volume of residential contracts declined slightly, the drop in the number of residential dwelling units was 7%, rather than the 9% reported for the national total.

❖

Warm Air Association Sets May Technical Conference

THEME of the second annual technical conference of the National Warm Air Heating and Air Conditioning Association to be held May 1 and 2 at Hotel Cleveland, Cleveland, Ohio, may be summed up as "Preparing for the Systems of the future by solving the problems of today."

The conference theme was stated by Frank L. Meyer, president of the Association, who said, "We have arranged the program so that our Technical Conference attendants can take an exploratory look into the future of residential airconditioning and then get to work on discussing ways and means of meeting today's problems."

The first morning session will be devoted to looking ahead and the remaining three sessions to everyday problems of design and engineering.

Commenting on the program, George Boeddener, managing director of NWAHACA, said, "Last year, a good portion of our Technical Conference subject matter revolved around the heating function of the airconditioning system. This year we are concentrating one whole session (the second afternoon session) on air cleaning."

Those planning to attend the conference may make room reservations by writing the Hotel Cleveland, Cleveland, Ohio.

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Oil Tank Gauge
for 1½" and 2" openings

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Clog Free OPERATION

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HUMIDEX TABLETS

Prolong Life of Humidifier

Placed in the float tank, Skuttle Humidex Tablets will protect any humidifier from the ravages of rust and corrosion. The destructive nature of lime, present in domestic water supplies, is prevented from adhering to vital surfaces. Scale is reduced to a sludge that is easily rinsed, prolonging the life of the humidifier.

By using Skuttle Humidex Tablets you eliminate costly service calls. All vital operating parts are kept free from clogging, guaranteeing better operation. Cleaning time is reduced to minutes without injury to the humidifier.

Economical for the user, there's extra profit for you. Include a package of Skuttle Humidex with your next humidifier installation. Each carton contains 12 tablets — enough for the entire heating season. Make Skuttle Humidex Tablets part of your annual service cleaning job!

STANDARDIZE ON **Skuttle**

THE COMPLETE LINE *with* INTERCHANGEABLE PARTS

MODEL 600

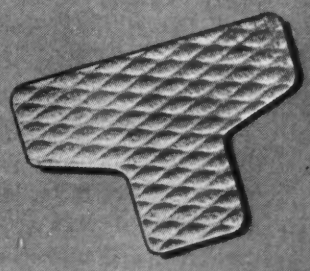
The most popular and successful of all humidifiers for many years. More than two million are in use today. It's the humidifier for warm air furnaces of the standard type, including winter air conditioning.

MODEL 450

Hangs on the side of the heater — evaporating plates reach into the air stream. Useful in counterflow, highboy, floor furnaces and space heaters, where space doesn't permit the use of Series 600.

MODEL 760

This increasingly popular duct type installation does an exceptional job of humidification. Note how the unit is installed on the bottom outside of the trunkline, leaving only the plates entirely exposed to give maximum evaporation without any obstruction. Airflow scrubs both sides and full length of each Vapoglas Plate.



Best by Every Test!

Patented

Vapoglas Plate

Made of pure glass wool, Skuttle's Patented Vapoglas Plates absorb 70% more water than any other type evaporation plate. Their highly porous structure resists clogging longer, but should be replaced once a season to maintain full humidifier efficiency. It's easy to do — and you make a good profit!

New lifetime stainless steel Vapoglas Plate Holders are now standard equipment on all Skuttle Humidifiers.

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Got your head in a whirl?

YOU CAN COLLECT RECEIVABLES FASTER-
WITH THE ELDRIDGE
Streamlined
HOME HEATING PAYMENT PLAN

*Our "Low Cost" Home Heating Payment Plan includes:—

1. Complete Customer Mailing Literature to explain the plan.
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25 YEARS PROMOTING OUR OIL HEAT INDUSTRY

WM. H. ELDRIDGE
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'Operation Overland' keeps Tanks full despite tug Strike

"OPERATION OVERLAND" a man-pounding, truck-wrecking, 'round-the-clock operation conducted by oil dealers of metropolitan New York kept New York's oilburners supplied with oil despite the tugboat and barge strike which cut off normal deliveries by water for 35 days.

No consumer in the metropolitan area went without oil for heat during the emergency, the presidents of the two principal associations of small retail oil firms concerned reported, but emergency rations were expensive and it was the dealers who paid.

"Operation Overland" began February 1, the first day of the strike, Patrick F. Caputo, president of the Oil Heat Institute of Long Island, said. Trucks from both Nassau and Suffolk Counties of Long Island made regular runs to various oil depots in New Jersey not directly affected by the strike. Round trips of as much as 200 miles were made.

Officials cooperate

Caputo expressed appreciation to Nassau and Suffolk County officials for their cooperation. Similarly, Anthony Panzera, president of the New York Oil Heating Association, cited the cooperation of the Mayor's office, the Fire Department, the State and city police for their actions in waiving the usual waits and permit requirements in order to facilitate the movement of oil. Trucks were permitted to use ferries and tunnels usually barred to oil transport trucks.

As to the cost of "Operation Overland," Caputo estimated it at "well in excess of $2,000,000" and Panzera said, "the average dealer has spent well over $1,000 a day in actual costs, overtime pay and hidden costs without raising his price to consumers even a fraction of a cent."

New Yorkers got through the 35-day strike without feeling a pinch either in their fuel allotments or their pocketbooks and they have their oil dealers to thank. As both industry leaders pointed out, without a truly cooperative effort on the part of the oil industry, it could not have been done.

Oil heat is first Choice in Portland and Suburbs

OIL HEAT is the first choice of residents of Portland, Ore., and its suburbs. According to Dale Josephson, executive secretary of the Oil Heat Institute of Oregon, in the first 11 months of 1956, there were 1,717 applications for oil furnaces, 1,305 for gas, 20 for solid fuels and 399 for electric heat.

Suburban areas also preferred oil, according to choices indicated on applications to the Multonmah County Planning board for new home permits during the first 11 months of 1956: oil furnaces were indicated on 1,264 applications; gas on 211; solid fuel on 7 and electric heat on 89.

❖

Fred Grinnell has been named Refinery Dedication Coordinator, Tidewater Oil Co., New York. For many years he had been a district representative in the New York-New Jersey area for the Oil Information Committee of the American Petroleum Institute. *Robert A. Stromberg,* also a district representative, is now in charge of the district office.

Appointed regional sales managers for the residential division of York Shipley, Inc., York, Pa., are *Marshall F. Robbins* for New England and New York with headquarters at Brockton, Mass., and *L. C. McInteer* for the Middle Altantic states with headquarters in York. Robbins had been a regional manager for Timken Silent Automatic Division and a sales manager of heating equipment for Norge Div., Borg-Warner Corp., Detroit. McInteer was formerly vice-president and sales manager for the Sterling Air Conditioning Co., Gastonia, N. C., and, earlier, a sales representative of American Furnace Co., St. Louis.

Robbins

McInteer

Replacements are big Business

They will grow in Importance at an accelerating Tempo

by
Robert Gray

THE OILHEATING industry pretty generally recognizes that replacement sales will become increasingly important in the years ahead. Yet, few men have a very definite idea on what the future holds for this very attractive segment of our sales.

Anyone who stops to think about the subject will recognize that replacement business is most vital for at least three reasons: 1) The dealer can usually get a much better price for a replacement than for highly competitive new home business; 2) The fueloil marketer needs replacement selling to hold on to his oil customers since his fueloil volume is a continuing source of profit; 3) To the degree that we do not replace antiquated equipment the gas industry will attempt to do it, building more strength for that fuel.

At this particular time we have decided to put special emphasis on replacement selling to encourage dealers to take a good look at their own markets. We also believe that manufacturers of oilheating equipment can better channel their promotional activities by being aware that this type of business is heading into a fine growth.

To give the subject special emphasis there are four other articles in this issue treating different phases of replacement and modernization. In addition, we aimed our special dealer participation study this month at getting their impressions of replacement selling in their own communities. If you have not already read this you'll find it in the "Special Study of the Month" section on page 12.

There are several approaches to an understanding of the replacement market. The logical first step is to think about how many burners and oilheating units are how old, and how long do they normally last. Certainly that consideration will be basic in this analysis. On the other hand, there are many variables that modify such a positive approach. For that reason no one can be exact in his forecasts, but if we take you step by step through the investigations we have made you will come out with a pretty good idea of the probabilities. We think you'll be particularly pleased at their import.

Our first step was to think in terms of pre-war burners as being the best prospects for early replacement. We went back to 1940 and added up all of the replacement sales by years. The 17 year total up through 1956 was 1,232,580. If we assume that the oldest burners were replaced first we would say that there are still in use 1,169,480 pre-war burners. This is simply a subtraction of the 17 year replacements from the 2,402,060 in use at the close of 1940.

TABLE 1

Ratio of Replacements to Sales 20 years earlier

	Actual Sales		*Actual Replacements*
1927	82,700	1947	58,613
28	107,500	48	90,750
29	131,300	49	58,200
30	126,400	50	96,960
31	104,000	51	91,808
32	89,200	52	103,283
33	88,600	53	104,567
34	108,290	54	118,080
35	150,510	55	119,483
36	220,075	56	141,838
10 years	1,208,575		983,582

We know, however, that there is another important influence on these figures. The oilheating industry has lost since the war a little over 550,000 old installations to competitive fuels.

Some of these losses to gas and electric heating were burners of more recent vintage, but broadly we can assume that they were pre-war installations. If we take those losses to other fuels away from the number previously stated as of pre-war age we would conclude that there are actually between 600,000 and 700,000 pre-war installations still operating.

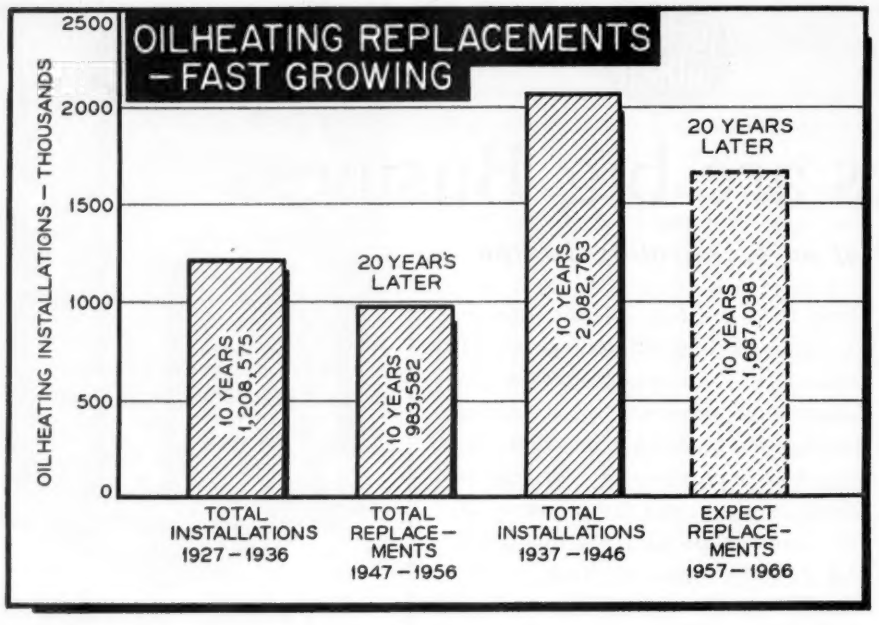
That is about the number of oilheating jobs installed in the three years just before 1940 so we have a rough guide as a starting point for our studies in using a twenty year life of the equipment.

With this in mind we decided to have a look at a 20-year life span of a particular lot of burners and see how we make out. We first listed in TABLE 1 the actual installations of oilheating made in the 10 years from 1927 through 1936. The total number was

Can Oilheating be predicted?

Fortunately, our sales fall into three quite definite groups ... new homes, replacements of old oilheating, and conversions from other fuels. Any attempt to predict the industry's future must measure the three influences. Conversions from other fuels and replacements of old equipment are predictable with a fair degree of confidence as this study will show. They are indicated at a total of about 420,000 a year for the next ten years with the rise of one offsetting the decline of the other.

New home predictions are beyond our industry's control, but during the past ten years we have averaged 283,551 new home jobs a year. Our highest point was 376,199 in 1955. For argument's sake, we might suggest that the next ten years for new homes would average the same as the last ten, ignoring our high peaks. That would give us total installations just over 700,000 a year in the coming decade, assuming that sales programs are not intensified above present levels.



1,208,575. Then we listed in the same table the actual replacements twenty years later or in the period from 1947 through 1956.

The total here was 981,582 and these were all our own replacements of our old jobs, without considering losses to other fuels. These recent ten year replacements amounted to 81% of the early ten year installations. So, regardless of the many influences and sidelights that have a bearing on this type of business we must recognize that this is what actually did happen.

We do know that during the past ten years competitive fuels took away a half million of our old oil users, so if these were added to our own replacements with oil we would have more replacements than original installations. The obvious answer here is that during that specific era of our industry's history the replacement rate was a little faster than our twenty year assumption.

If this reasoning is getting a little obscure let's for the moment just stick to our knowledge that we replaced old oilheating with new oilheating in a number of homes equivalent to 81% of installations twenty years earlier.

Now look at the chart "Oilheating Replacements—Fast Growing." The first two bars on the chart show just what we have been talking about. The third bar steps ahead ten years and gives us the total number of installations made in the period 1937 through 1946 or 2,082,763. The fourth bar in the chart shows in dotted lines, from our crystal ball department, what we expect replacements to be in ten years starting just now. This is based on the same 81% assumption from the actual experience that we have just related. You might feel that this assumption is optimistic because of losing more accounts to gas and electricity in recent years—that is not the case, however, from a percentage standpoint, as we shall learn a little later.

TABLE 2

Other Fuels take some of our Replacements

	OILHEATING REPLACEMENTS			
	With Oilheating	*With Other Fuels*	*Percent Other Fuels*	*Total Replacements*
1947	58,613	44,536	43%	103,149
1948	90,750	40,950	31	131,700
1949	58,200	38,250	40	96,450
1950	96,960	50,830	34	147,790
1951	91,808	68,256	43	160,064
1952	103,283	32,734	24	136,017
1953	104,567	47,065	31	151,632
1954	118,080	55,604	32	173,684
1955	119,483	75,067	39	194,550
1956	141,838	90,137	39	231,975
	983,582	543,429	36%	1,527,011

Just by way of interesting conjecture and using a much larger crystal ball, it doesn't hurt to notice that in the ten years just finished or from 1947 through 1956 our industry made 7,336,930 oilheating installations. If 81% of those are replaced by our own equipment in 20 years, or between 1957 and 1976, inclusive, the replacements would be 5,942,913. Too many things can happen between now and 1967 to make that a particularly valid prediction, but at the same time it is worthy of note that our wonderful post-war business up to now will bring some extraordinary replacement opportunities in that 1967-76 decade.

Now let's look across at the chart on the facing page "Replacement Gains will offset conversion Losses." Naturally that is one of the primary reasons for our enthusiasm over the growing replacement market.

Through all of the years up until the last two or three the biggest percent of our annual sales volume has come through conversions to oilheating from other fuels. We're not talking here about conversion burners (we now call them separate burners), because these conversions from other fuels were often complete oil boilers or oil furnaces.

We were taking most of this business away from coal. We did such a good job of it, assisted more recently by other automatic fuels, that this application must continue to decline. Our chart implies that sometime around 1965 the line of replacements will reach a cross-over point with the line of conversions, with each application getting about 210,000 sales in that cross-over year. Moreover, at each point between now and then the combined conversions and replacements apparently will stay somewhere above 400,000.

Notice that this study takes no account of the New Home market which has become a big share of our total, but which is much less predictable. The conversion and replacemeent categories are pretty much in our own hands; new home installations are outside of our control.

One interesting phase of this chart is in its verification of replacement sales forecasts. If you add up the ten

future years based on the extension of the line you will get 1,775,000 replacements. Notice how close this comes to the ten year prediction shown in the first chart, and based on 81% of burners in the twenty year age bracket.

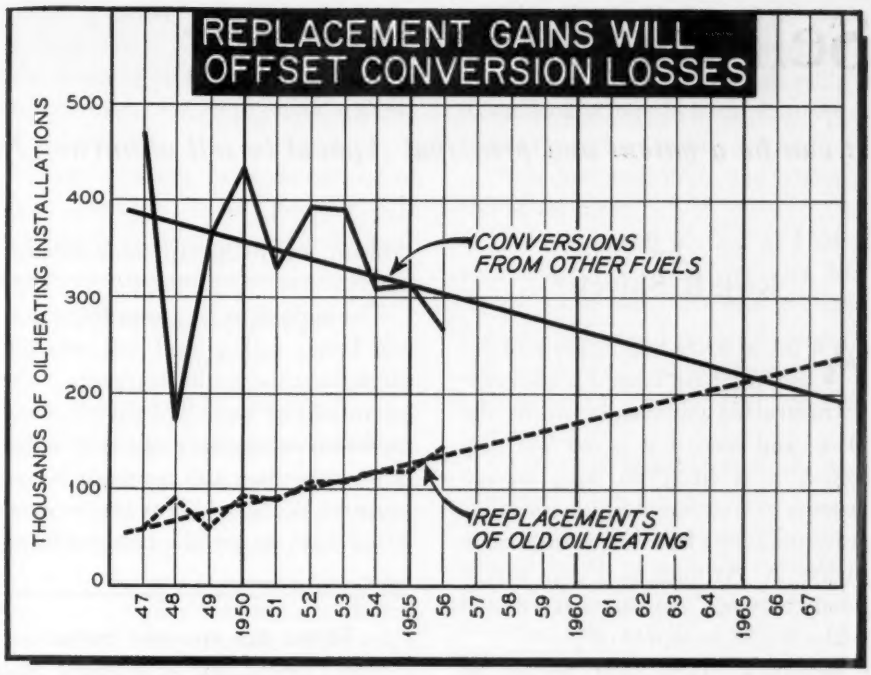
Coming back to the question of our losses to other fuels these are naturally deplorable, but fortunately they are not gaining in intensity. TABLE 2 shows this in detail.

During the past ten years there have been 1,527,011 old oilheating plants replaced in one way or another. We sold new oilheating equipment to 983,582 of those customers or 64% of the list. Other fuels, principally gas and electricity took 543,429 or 36% of these replacements or perhaps we should call them displacements.

There was considerable variation in this ratio by years, but notice particularly that the other fuels took a larger share away from us in 1947, 1949 and 1951 than they did in the past two years.

In other words, while the actual number of losses to other fuels has grown the ratio stays about the same. For all practical purposes we can consider the 36% going to other fuels as representative, looking a moderate distance into the future.

In TABLE 3 we show the relationship between replacements of old oilheating with oil and replacements by other fuels in three principal regions. We show only these three primary sections of the industry since they represent 84% of the industry's total replacements, and the figures are inclined to be more accurate in the heavier coverage.



Over a ten year swing, the oilheating industry in both the Mid-Atlantic and New England regions saved 79% of their replacements while losing 21% of them to other fuels. The Midwest made a weaker showing by losing more than half of its replacements to other fuels.

This is particularly noteworthy in view of the fact that the Midwest for several years has grown faster in oilheating installations than any other major marketing area. Apparently, the industry in that region is losing more of its antiquated installations to cheap fuel competition in large cities while adding significantly to its business in the smaller cities and metropolitan suburbs.

An especially significant observation in this table is the fact that while the eastern markets have been losing an increasing number of their replacements to other fuels, the ratio has not been increasing. Dealers in these markets didn't realize ten years ago that they were losing quite a few replacements to other fuels. This was because the competing fuels had not yet started making a lot of noise in those markets through their new home advances.

Sometimes it's hard to realize what a huge industry we have in oilheating. TABLE 4 illustrates an important point in this connection.

The replacement market is important in annual sales of oilheating equipment. It will become increasingly important at an accelerating rate, yet it represents only a very small portion of the total burners in use today.

The reason, of course, is that so

(Please turn to page 157)

TABLE 3

Replacement Ratios Differ by Geographic Divisions

	NEW ENGLAND			MID ATLANTIC			MIDWEST		
	by Oil	*by Other Fuels*	*Percent by Oil*	*by Oil*	*by Other Fuels*	*Percent by Oil*	*by Oil*	*by Other Fuels*	*Percent by Oil*
1947	8,511	2,847	75%	25,872	6,097	81%	14,729	16,790	47%
1948	13,184	3,420	79	40,062	8,878	82	22,808	19,542	54
1949	10,837	4,904	69	24,987	4,522	85	17,737	11,850	60
1950	14,708	4,377	77	39,948	4,388	90	30,238	43,719	41
1951	23,096	2,990	89	48,253	14,130	77	9,579	25,937	27
1952	13,393	3,780	78	39,522	12,756	75	24,236	9,859	71
1953	19,631	5,228	79	40,938	12,132	77	21,103	21,082	50
1954	16,834	4,921	77	58,123	9,321	86	29,475	31,432	48
1955	31,672	10,393	75	36,908	15,890	70	34,447	41,746	45
1956	31,488	5,544	85	39,828	18,826	68	45,956	54,076	46
	183,354	48,404	79%	394,441	106,940	79%	250,308	276,033	48%

Sell modern Living

It can be a potent and principal Appeal to sell oilburner Replacements

by
Kirk B. Shivell*

AN OIL BURNER is a rather remarkable machine. Even if it was poorly constructed and installed in the first place, and even if it is old and neglected, it is likely to have enough stamina to continue running for many years and keep a building warm enough to live in. As long as it does this, a family may not complain and a fueloil dealer is glad to supply oil for it.

Beyond a certain point, though, an oilheating man isn't being fair to himself or his customer when he allows an ancient burner to remain in use, and it is conservatively estimated that at least 1 million of the oilburners in duty today are outworn, obsolete and should be replaced. The potential value of this market in terms of equipment sales has been put at $500 million or better. But its full value to the oilheating industry actually is much greater, because if an old oilburner is not replaced with a new one, there is growing danger that it may be replaced by a gas burner.

From coast to coast certain alert oilheating men are actively campaigning to sell modernization, and many others are making some kind of effort to do so, but in the typical community there still are untouched and waiting opportunities.

Some dealers urge families to modernize their heating equipment for the sake of economy or efficiency. This is a good reason and one that probably is a factor in most modernization sales. Yet it probably is not the most compelling reason to a family. The underlying impulse seems in most cases to be the sheer desire to be modern, to have something new and better, to possess equipment for which they can feel pride. It is the same impulse that urges millions of families each year to buy new automobiles when the old ones still run; to buy dishwashers when they could get by with an old-fashioned dishpan; and to discard old clothes for new.

The impulse to have something new and better makes itself felt strongly throughout the world, as reports of the aspirations of backward nations show us, but nowhere on earth is it so urgent, compelling and potent as in our country. We should bear this in mind if we want to get the best results in selling modernization. By all means, let us talk about efficiency, economy, cleanliness and peace of mind—these reasons will help a prospect to rationalize the expenditure; but when we glamorize new equipment and make the prospect feel he will be backward not to have it, we are playing on the real key to successful modernization selling.

In general, there are four different approaches to the modernization sale:

1. Price Appeal. This consists of featuring a low-priced equipment offer, usually a stripped-down burner.

2. Package of Accessories. This usually is a combination of a few items such as a baffle, a new nozzle, a control, a line filter, etc., which allegedly will make an almost-new heating plant out of an old one.

3. Perfect Unit. This is a complete new heating plant, cooling unit, or combination of both. The price is relatively high, but it is offered as the perfect equipment—the best the prospect can have.

4. Prescription. This approach consists of objectively studying the prospect's present equipment and requirements and then specifying what the dealer believes he should have, regardless of whether it is a mere accessory or an entirely new system.

Which approach or approaches a dealer should employ is something he can best decide for himself, perhaps after some experimentation, but the following comments may give some guidance.

There are specific instances when the fueloil-oilheating dealer "isn't being fair to himself or his customer if he allows an ancient burner to remain in use." Replacement of these old jobs not only contributes oilheating equipment sales income, but, more importantly, cements good will and keeps customers happy with oil heat. The urge to be modern is a potent influence with most families; so this article explores ways to capitalize on this influence, along with other sales approaches to replacement selling.

Some dealers feel they have good success with price appeal, but the weakness of this approach is the fact that it is likely to get a response only from persons whose burners have been causing so much trouble that it is evident they have to be replaced. Glamour is likely to be lost in making a sheer price pitch.

The selling of a package of accessories is essentially a high-pressure specialty selling approach. Some people will respond to it as to nothing else, therefore a dealer may feel it is justifiable and necessary. However, since its essence is moving equipment rather than doing something of certain benefit to the consumer, its merit is open to question. The package may improve heating for many of the dealers' customers, but will it surely do so for all?

The perfect unit approach also is a specialty selling operation, but one on a high plane. It has been very successful, obviously because it gets the full help of that potent impulse to own the best that can be had. The technique to employ in this kind of selling is to make a thorough survey of a building, then to return with a hand-

*The Shivell-Hall Co., New York, N. Y.

some proposal for the installation of an excellent unit.

An important advantage of perfect unit selling is found in the fact that it permits sufficient margin for a liberal commission, thereby making it easier for the dealer to attract and hold capable salesmen.

Prescription selling commends itself to many dealers because it can be so sincere. At its best, it enables a customer to have exactly what he needs and no more. It can be amply profitable, and by its nature tends to strengthen the bond of confidence between dealer and customer. Perfect unit and prescription selling often can go together.

While today's largest and most ready market for modernization selling is for oilburners in homes, two other related markets deserve active cultivation, provided a dealer is set up to sell to them. One is the market for airconditioning, the other for modernization of industrial and commercial oilburner installations. The airconditioning market is now of prime importance for many dealers.

Make Direct Contact

General advertising can be done to interest prospects in modernization, but probably the best way for a dealer to start a modernization program is to pick out prospects and make a direct contact. If a man is solely an equipment dealer he logically will find his best prospects among the people for whom he made installations some years ago, but another good way for him to get leads is, of course, to co-operate with neighboring fueloil and service organizations which do not sell equipment. The dealer who sells both oil and equipment is, by far, in the best position to make modernization sales.

The fueloil-equipment dealer has close and continuous contact with his customers and it should be relatively easy for him to isolate his most promising prospects. Here are typical groups:

a. Families whose burners are 10 years old or more;

b. Families whose oil consumption is high;

c. Families who have made complaints about heating or who have had service troubles;

d. Families with warm air systems where a cooling installation may be made readily;

e. Families whose means will enable them to install airconditioning, regardless of its cost.

Many a dealer lacks enough salesmen. Therefore, it may be necessary for him to contact prospects by mail

Oilheating replacement and modernization Feature

and either hope that some will reply or that he and his salesmen will have time to follow up by phone. This method of contacting conserves time and may stir up all the business a dealer can conveniently handle. However, each mailing should be slanted to the particular group it is going to. That is, people with old equipment should get a letter telling how much better today's equipment is, together with literature showing handsome modern units. People with high oil consumption should get a letter which tells them of this fact.

On the whole, though, there is no better way to start a modernization sale than to pick up the telephone. There is evidence that most modernization sales are concluded in the home in the evening, but it is good practice to make the opening phone call in the morning and talk to the wife. Unless a salesman awakens her interest or at least softens her resistance at the start, he may never make the sale no matter how much the husband favors it. Here, for example, is a gambit:

The friendly dealer voice asks: "Mrs. Smith, when was the last time you bought a car?"

"Oh, I don't know exactly. Sometime last year."

"Well, do you know it has been 10 years since you bought a new oilburner, and today's oilburners are just as much different from those of 1947 as today's cars are. I doubt very much if you are getting the performance you should have, and if I may I'd like to stop by some evening when you and Mr. Smith are at home and show you what I mean."

With the high oil consumption prospect, the gambit can be more forceful:

"Mrs. Smith, I've just been doing some checking here and it seems to me you are using a lot too much oil. I'd like to look at your heating plant sometime soon and see what's wrong."

"You don't say! Well, you can come almost any time."

"I think it will be best if I do it sometime when both you and Mr. Smith are at home, because if conditions are as bad as I think they may be you might need a new oilburner; and I know that's a matter that concerns you both."

"We aren't going to buy any new oilburner, I can tell you that."

"I hope you don't have to, but I wanted to tell you of the possibility. What I am going to do is make a series of tests—and I think you and Mr. Smith will be interested to see them—then we can tell. With good luck maybe some tuning up or repairs will do the trick. Anyway, let's find out. Now, would tomorrow evening be okay?"

Note that both these openings immediately bring up the thought of new equipment. Some salesmen think it is better to conceal this idea until they have got into the house, but if we have pride in what we sell and expect the customer to become eager for it, why be furtive?

Basement View

However he wangles it, the modernization salesman usually should try to get his prospects down in the basement with him. There the deficiencies and unsightliness of the existing installation can be deeply impressed on the prospects, so that when the final scene is set in the living room they feel dissatisfied and are impelled to respond to the new and better equipment that is described and illustrated.

The opportunities in modernization selling are by no means limited to a dealer's prior or present customers. But they should be the easiest prospects to sell, and after a dealer has worked them and widened his experience in this kind of selling he will be able to make a more confident approach to strangers. But whether prospects are close friends or people never seen before, let's realize that almost every one wants to have what is best and most modern. We owe it to them and ourselves to show them we have it.

Should Replacements be insured?

Can a sum be added to service Contracts to automatically bring Home the Modernization?

by
Tom Carson

Our losses to other fuels are confined almost entirely to speculative new home developments and to replacements of antique oilheating jobs where we failed to sell a new unit.

There has been some discussion among key dealers over automatic renewal of defunct heating plants under an insurance extension on service contracts.

A CONSIDERABLE DIVERGENCE of thinking has developed in a number of markets where natural gas has become a potent adversary of oil heat. One of the best illustrations exists in the Baltimore market, where between oil and gas heating a decidedly high saturation point of approximately 90% has been attained. In addition, the oilheating industry has been unable to find ways and means, as yet, to hold its share of the new home market. The Public Utility has maintained a stationary gas heating rate of $1.17 per thousand cubic feet (1,030 Btu gas) since 1950, and has admittedly absorbed quite a number of pipeline increases because of a fixed determination to abruptly increase its volume.

Carson

In examining the 1956 financial report of the Baltimore Gas and Electric Company sent to its stockholders, the statement is made that they now serve over 106,000 gas heated homes in the metropolitan Baltimore area, which they state is over six times the number of homes so heated in 1950, when natural gas was introduced into this area.

In 1950 the oilheating industry had approximately 175,000 properties heated with oil in this area, and according to the best reports attainable, this amount has not increased significantly. There has been a loss of about ¾ of 1% of the accounts per annum to gas, which in turn has been replaced by the oilheating trade from the dwindling coal conversion properties, thus leaving the oilheating industry in this area static.

Another way of expressing this is to make the statement that prior to 1950, the oilheating industry was installing its equipment in approximately 95% of all new homes constructed in the Baltimore area, whereas in the last several years, the Public Utility now installs 96% gas in speculative new home construction. Moreover, during the last 6 years the price of No. 2 fueloil has increased against the stationary price of gas.

The economic advantage which oil enjoyed for years over gas heating in this area has largely disappeared, and the situation is further aggravated by service charges assessed by the oilheating industry as against so-called "free service" by the Public Utility.

The object in portraying this market condition at length is merely to establish the background against which two schools of thought have developed.

Short term Viewpoint

The first line of reasoning concerns itself with what might be called a short term economic viewpoint. The steady advance in wages, fringe benefits, overhead costs, etc., apparently has induced a number of retailers of fueloil to shunt aside every conceivable phase of mechanical service, which they can possibly escape. The idea seems to be to confine the mechanical service rendered to the oilburner and its primary controls, and to refer the customer for all other phases of heating difficulties to the plumbing and heating contractor.

At first blush, this may seem to be economically sound. It has reduced the number of mechanics employed and the overall service expense, especially in a market where service contracts, of a most comprehensive nature, are sold at probably as low a price as exists in the country. The net effect of this type of restrictive mechanical service has produced a temporary benefit upon the profit and loss statement. Just how much business has been lost under this policy, not only to the gas company, but financially to the dealers themselves who practice such a philosophy, is not known precisely.

Oilheating replacement and modernization Feature

The other school of thought is in reverse gear. There are some oilheating outlets in the Baltimore area of quite some size, in addition to those of smaller stature, who have gone all out for their oilheating customers to provide every phase of mechanical service needed in connection with the heating and/or generation of domestic hot water.

These concerns have found to their definite satisfaction that they are in position to make money through modernizing by replacements, and hold the fueloil business, especially in the case of cracked boilers, where experience has shown definitely that gas almost invariably has been installed whenever the customer is referred to the plumbing and heating trade.

As a matter of fact, there is quite a study being made at the present time by one of the largest companies in this area, looking towards some form of boiler protection. I have seen a suggested formula, which charges the customer a premium of $3 per $100 per annum for boiler protection with the amount offered not to exceed $500. The potency of this plan lies in selling this boiler protection along with the annual service contracts, and in the event the boiler gives way, the automatic reaction from the customer is to call upon the oilheating dealer for the sum covered to apply against the boiler replacement.

The actuarial figures are not very clear, but this particular company has

taken its own figures of boiler failures and extended the cost of replacements. Then they reached the approximate premium of $3 per $100, which they believe will be adequate to protect the risk. The cost of the premium may be disputed, but the idea has considerable merit, since, if actuarially sound and sold in sufficient quantities, it will definitely have the effect of holding the customer to the use of fueloil.

I have been seriously concerned with what I term fallacious thinking as expressed by the school of thought that curtails the service rendered to the consumer. I have the definite, firm opinion that it is simply good business for the consumer to be fully in the hands of the oilheating dealer providing the mechanical service, and not partially there. I believe that the customer desires to be in the hands of one thoroughly competent company which can provide for all of his heating needs. It also seems true to me that in the older markets, such as Baltimore, there is considerable modernization and replacement work which can be undertaken at a profit. At first blush, service contracts may seem to work against this philosophy, but there are a number of oilburners which have been in use for well over 15 to 20 years, together with heating plants of much older vintage, which could be justified financially as being replaceable.

Regardless of the dubious phases of the profit angle, it seems not only advisable but necessary for the oilheating dealer in a vigorously prosecuted gas area, to render every reasonable mechanical service of which he is capable, in order to remove the outside influence which will invariably try to turn the business over to gas. Also, it may well follow that a properly designed, adequately advertised and sound actuarial protection plan of boilers may be a very potent adhesive agent in the retention of our existing fueloil business.

Fred Heaney to chairman OHI's 35th Convention in Boston June 3-6

CHAIRMAN of the 35th annual convention of the Oil-Heat Institute of America, Inc., to be held in Boston, Mass., June 3-6 is Fred Heaney, president of Skaggs-Walsh, Inc., Long Island City, N. Y.

Heaney

Heaney, whose appointment was announced by the executive committee of the OHI, is national chairman of OHI's Distribution Division, a member of the executive committee and the board of directors and recent past president of New York Oil Heating Association, Inc.

Headquarters for the June convention will be the Sheraton-Plaza Hotel in Boston. Running concurrently with the convention will be the biennial exposition of the Oil-Heat Institute of New England, a Distribution Division Chapter of the national association, at the Hotel Statler.

Eighty round table discussions covering all phases of heating oil, oil heating and cooling equipment will be held two mornings during the convention. Led by experts in their field, discussions will be held in three complete sessions each morning, allowing dealers participation in six different sessions.

Everett Elliott, past president of the Oil-Heat Institute of New England and New England's regional chairman for the distribution division, and Pat Caputo, president of the Oil-Heat Institute of Long Island, are co-chairmen of the Distribution Division's convention program committee.

Exhibitors at Eastern Exposition:

MANUFACTURERS who have reserved space in the 1957 Eastern Biennial Exposition of Oil Heat and Domestic Cooling to be held June 4-7 at the Hotel Statler, Boston, Mass., have been announced as follows:

Adelta Mfg. Co., Air Conditioning Engineering Co., American-Standard Air Conditioning and Plumbing & Heating Divisions, American Tube Products, Inc., Applied Mechanics Co., Automatic Devices Co., Inc.

Bacharach Industrial Instrument Co., George R. Bascom Co., Inc.; Bell & Gossett Co., Boston Machine Works Co., Burnham Corp. Boiler Division, Burroughs Corp.

The Carlin Co. U. S. Burner Division, Cleaver-Brooks Co., Columbia Boiler Co. of Pottstown, Combustion Control Division of Electronics Corp. Commercial Filters Corp., Crane Co.

John Dale, Delco Appliance Division of General Motors, L. James DeWolfe (Stone Base Tank Lining), Dielectric Products Co., Inc., Dole Valve Co., Domestic Engineering Publication, Duc-Pac, Inc., du Pont de Nemours & Co.

Econo Products Co., Inc., Electric Furnace-Man, Inc., Embassy Steel Products, Inc., Everhot All-Copper, Inc., Evis-Northeast Co.

Field Control Division of H. D. Conkey & Co., Fitzgibbons Boiler Co., Inc., Fostoria Pressed Steel Corp., *Fuel Oil News*, FUELOIL & OIL HEAT.

General Automatic Products Corp., General Electric Co. Heating Division, General Filters, Inc., General Fittings Co., Gerwin Industries, Inc., Gulf Oil Corp.

Hall Equipment, Inc., Hayward Oil Burner Corp., Heat-Timer Corp., Heil Co., Hoff Manufacturing Co.

Iron Fireman Manufacturing Co.

Kaustine Furnace & Tank Corp.

Lordan & Edwards Co., Lynn Products Co.

McDonnel & Miller, Inc., Massachusetts Trades Shops School, A. M. Matthews & Co., Inc., Modern Equipment Corp., Morrison Steel Products, Inc., Morse-Smith-Morse Co.

National-U. S. Radiator Corp., New England Equipment Dealer, New England Technical Institute.

Oil Equipment Manufacturing Corp.

Paco Industries, Inc., Parke-Hill Chemical Corp., Pullman Vacuum Cleaner Corp.

Quality Specialty Co., Inc., Quiet Automatic Burner Corp.

Radio Corp. of America, Rheem Manufacturing Co., Richmond Plumbing Fixtures Division, Rochester Manufacturing Co., Inc.

Scaife Co., Timken Silent Automatic Div., Scully Signal Co., Slant-Fin Radiator Corp., H. B. Smith Co., Inc., Spi-Rol-Fin Corp. Wm. Steinen Mfg. Co., Stewart-Warner Corp., Sun-Ray Burner Mfg. Corp.

Taco Heaters, Inc., Thatcher Furnace Co., Toridheet Division of Cleveland Steel Products Corp.

Utica Radiator Corp.

V & E Products, Inc.

Walker Mfg. & Sales Corp., Waltham Oil Burner Co., Weatherall Engineers, Inc., Weil-McLain Co., Williams Division of Eureka Williams Corp.

York-Shipley, Inc.

Zoning for Comfort

To be sure Homeowners enjoy indoor Comfort two temperature-control Zones are needed

by
C. W. Nessell*

DURING THE PAST six or seven years the Mobile Laboratory, operated by the National Warm Air Heating and Air Conditioning Association, has traveled from coast to coast, has made between 150 and 200 complete surveys and innumerable "snooping" sorties, has been in every conceivable style of house, and tested every imaginable type of warm air heating and cooling system, including some that are a bit difficult to imagine.

It is obvious from our conversations with the homeowner in his own backyard that there are shortcomings in the warm air heating and airconditioning industry today. That's why equipment manufacturers, heating and airconditioning contractors, builders who buy equipment, and the firms that supply automatic controls for it have become accustomed to hearing complaints like these . . .

"My feet are cold and my head is hot and I want you to do something about it."

"The floors are so cold in here that my cat is sleeping on the piano and I have to tuck my toes underneath me everytime I sit down."

"One side of my house is too hot and the other is too cold—is there anything you can do about it?"

"It is so cold in here that the bathroom mat is frozen to the floor. There's a draft—a cold one—blowing on the back of my neck right now."

"You call this airconditioning—why it's no good at all and it cost me $1,000 and you'd better get out here and do something about it right now."

"It's so cold in here we can't stand it. The baby has a cold and I know he got it from playing on these cold floors."

"I'm not comfortable."

*Heating industry consultant, Minneapolis-Honeywell Regulator Co.; chairman, Field Investigation Committee, National Warm Air Heating & Air Conditioning Association.

The average homeowner and more specifically his wife, know that they are either comfortable or uncomfortable in their home in the dead of winter or the heat of summer. But they seldom know why. If they are comfortable they thank their lucky stars that they were fortunate enough to get a well-constructed house that for some reason or other had a system in it that gave comfort performance. If they are uncomfortable, they blame the house construction and shrug off the heating or cooling system with the comment that one should not expect to be too comfortable in a single occupancy house in the suburbs.

C. W. Nessell

Even the "toe-tucker" whose bathroom rug was frosted to the floor opined that the heating system was all right but that the apartment they had in Detroit was more comfortable. From what we later saw of the heating of that home I was certainly inclined to agree with her.

Today this industry has more indoor comfort to offer the homeowner than ever before in history. We have reason to boast of our "know-how" of heating and cooling a home but when we try to tell the homeowner about it we speak in meaningless generalities and use a technical jargon that sounds like double talk to him.

When homeowners silently accept cold floors, frigid air around the ankles, torrid air around the head, and drafty registers that blow cold air down the back of their necks as an inevitable part of the performance of an indoor comfort system, then something is wrong. We have been negligent in telling the homeowner the facts of comfort heating.

We offer "guaranteed heating," such as "the house will be heated to 70° indoors when it is some specified temperature outdoors." This means little or nothing since rarely is mention made of where the 70° will be. Will it be at the floor and in every room of the house, or only at the thermostat—it's anyone's guess. Floor surface temperatures, temperature variations between burner operations, continuous air circulation, and room to room temperature balance are never mentioned.

Such a guarantee could be applied to a coal stove in the old-fashioned parlor and be equally applicable. The homeowner is too often satisfied with such a guarantee because he knows no better, and we have dismally failed to tell him otherwise. His primary interest is the comfort of his wife and kids, and perhaps his mother-in-law too, and not in cfm's, Btu's and properly sized ducts. He would not know a Btu if he saw one and probably could not care less about it. We talk of comfort but never define it.

Our industry methods of merchandising indoor comfort—the real end product that we have to sell—are obsolete and archaic. They are reminiscent of the automotive industry in 1907, when automobiles were sold on the strength of their components. It had Goodrich tires, Delco-Remy ignition, Sparton plugs, Klaxon horn and perhaps a Continental motor. Because the parts were good, the riding comfort was assumed to be good. That

sort of merchandising was understandable for guys like myself that expected to spend every Saturday morning removing the carbon from the engine head, but the non-technical person who was interested only in a comfortable ride did not know what they were talking about.

Now the automotive industry sells on appeals such as "Power to pass," "Safety," "Roadability," "Beauty," "Ball-joint suspension," and even the "Forward look," all the sort of things that a buyer, man or woman, can understand and relate in measurable terms to his own way of life.

This industry must revise its merchandising appeal if its high level reputation is to be maintained and the current surge of cheaply installed, poorly performing jobs, is to be stopped. We must sell the taste and aroma of the apple pie instead of the recipe that the cook used to make it. We must have comfort performance standards that specifically define what indoor comfort means in specific terms, and it must be written in kitchen english.

Such a set of comfort performance standards will be available soon and then the homemaker will have something that she understands, that she can use to judge the one heating estimate against another by insisting that certain comfort standards be the basis of the guarantee. Then, and only then, will the cut-the-price, skimp-the-job, wages and no profit, fly-by-night operator discover that there are other considerations in a job besides the "lowest" price.

General industry practice indicates that a well balanced job should have no more than a 3 degree temperature difference between rooms. In other words, 72° in one room, 71° in another and perhaps 74° in a third—this to continue around the clock.

A review of specific field reports indicates an inherent difficulty in maintaining a room-to-room temperature balance within 2 or 3 degrees and that the temperature balance was not consistent throughout the 24 hours of the day. The inevitable conclusion is that because of changes in house construction, the use of larger glass areas, and changes in floor plan arrangement, it will be impossible to maintain good room-to-room temperature balance without the use of two or more thermostats in many, many houses.

We are not doing it. A review of field data shows that only 31 jobs out of 80 had room-to-room temperature differences within the desired 3 degrees. Some were as high as 7 to 10 degrees. This suggests improper balancing or no balancing at all, but this is not always the case.

Job data taken in the evening shows that many were balanced as well as you or I or anyone else could possibly balance them. The wide temperature variations were due to changes in heat losses from rooms or entire areas of the house as the orientation of the sun affected various wall, glass, and roof surfaces.

The differences reported were based on average room air temperatures taken hourly from mid-morning to mid-afternoon on a single day. The data do not reflect variations of temperature within a given room or an area throughout the day, nor do they indicate the change in room air temperatures at night or with variations in outdoor weather such as the direction or intensity of sun and wind.

Oilheating replacement and modernization Feature

There have been some radical changes in house construction and occupancy habits over the past 15 years. The old style two story box house was adequately and satisfactorily heated by a single thermostat. Picture windows were almost unknown. There might have been a large window in the parlor and if so, it was usually protected by a porch. Now it is the exceptional house even in the low price group, that does not have at least one picture window. Glass areas now extend practically from the floor to the ceiling and sometimes an entire outside wall of one or more rooms is made of glass.

We are seriously concerned over heat gains through glass when we design for summer cooling. However, we disregard the fact that daytime heat gains through the windows in the winter are often severe enough to overheat a room thus affecting the thermostat and unbalancing the room-to-room air temperature differences through the entire home.

At night these conditions are completely reversed and the glass areas become important areas of heat losses and rooms with large glass areas lose more heat than those in the house with a normal amount of glass.

Instead of the conventional box house of 15 years ago, many of today's homes spread out in all directions. The more the house spreads the greater are the effects of sun, wind, and weather. Thus, it is possible to have overheating and undercooling on some sections and the reverse in others. Fifteen years ago there were virtually no U-shaped, L-shaped, or H-shaped homes in the low and medium price class. Now we have them in increasing numbers in the higher priced brackets.

These houses are literally two or more houses with respect to heat losses and heat gains. It is evident that more than a single thermostat will be required if the desired comfort level is

One out of every five homes being built this year should have two temperature-control zones or additional furnaces or cooling plants to provide even minimum comfort. This is the conclusion of field observations reported here as made by Minneapolis-Honeywell and studies of the Field Investigation Committee, NWAH-ACA. The surveys found six major conditions in modern home design which necessitate zoning: basement occupancy, large areas of glass, spread-out floor plans, air convection between levels, rooms over garages or open spaces and floor plans designed around separate family activities. The indicated market just for 1957 new homes is an added 200,000 comfort units.

to be maintained in each of the distinctively separate areas of these irregularly shaped homes.

The high cost of land and the need for larger houses to accommodate larger families have brought about a reversal of the spread-out trend. The houses today, in many cases, are going back to plans utilizing two or more levels but they are not returning to the square box styles. Many have rooms over garages, and in some instances projecting out over a patio or carport or an unexcavated portion of the home.

Special Problems

The heating or cooling requirements in these rooms are often different from the rest of the home.

In our investigation of split level homes we found the upper level overheated, the middle level reasonably comfortable, and the lower level invariably too cold. This severe temperature unbalance is due primarily to convection and air movement between floors and to the greater exposure to outside weather conditions on some parts of the home.

Basement occupancy is increasing in popularity in many areas of the country. The basement space, which may be utilized for family rooms, game rooms, and even for sleeping quarters, is very special in its heating and cooling requirements.

The above ground area of such a home on a warm sunny winter day may require but little heat while the heat losses through the cold basement wall will demand a substantial amount of heat and provision must be made for both sets of conditions.

Providing for separate sleeping and living area temperatures simultaneously is completely in tune with today's occupancy habits. For example, the homeowner may desire more cooling in the living area of the home to offset changing weather effects or the additional head load created when entertaining in the living area.

During sleeping hours the homeowner may desire more cooling in the bedrooms while the living area is unused. The reverse would be true during the heating season.

With these trends in housing design and construction, there is little doubt but what the heating and cooling industry must realign its thinking concerning the number of thermostats required in these homes. In fact, comfort conditions that the industry is striving for will only be a promise instead of a fact if this problem is not recognized and solved. The homes built tomorrow must be planned today. Therefore, as a part of the Field Investigation activity we attempted to look into the future and determine the probable number of 1957 homes that would require two or more thermostats to maintain comfort.

Approximately 1,550 new houses have been examined in seven major cities. The homes and areas were chosen as being typical of major metropolitan markets which would reflect a broad range of climatic and housing characteristics. In addition, a special survey of 184 homes was made on Long Island and a study is now underway on the West Coast.

Obviously it was not possible to examine the houses proposed for construction in 1957 but it was assumed that those constructed in the first half of 1956 would be typical of those to come in 1957.

So the survey was limited to single family homes, priced above $10,000, in seven cities and on Long Island. On this basis it was determined that approximately 20% would require two or more thermostats for the maintenance of minimum comfort.

It is estimated that approximately one million homes will be started in 1957. On this basis the findings of this survey indicate that two or more thermostats will be necessary in at least 165,000 of these million homes.

Survey Objectives

The survey was conducted by engineers and market analysts who know and understood the problems of heating and cooling. It had two objectives:

1. Will this house be comfortable with a single thermostat.
2. If not, why not?

No attempt was made to determine how many additional thermostats would be required but undoubtedly many of the houses would require three, four or possibly five of them. Add these requirements for minimum comfort to the 165,000 homes and an estimate of 200,000 additional thermostats or comfort units becomes conservative.

While the percentage of homes requiring two or more thermostats averages almost 20%, the reasons differed in each area.

In Atlanta, where 15% of the homes would be uncomfortable with a single thermostat, basement occupancy was the major reason. Spread out floor plans, the requirements of both heating and airconditioning, and convection between levels also were important factors.

In Boston it was found that 23% of the single family homes over $10,000 would require two or more thermostats. Of this group, 33% would need it because of basement occupancy with rambling floor plans as the second most important factor.

Twenty-four percent of the houses in Cleveland needed an additional thermostat—more than half of them because of designs which called for basement occupancy.

Houston Differs

The situation was different in Houston, the greatest airconditioned city in the country. Here the percentage of homes needing additional thermostats remains near the 20% level. The two major reasons in Houston are spread out plans with their attendant exposure problems and varying temperature requirements between sleeping and the living areas.

In Minneapolis, 19% of the homes were found to require two or more thermostats with basement occupancy again the dominating factor.

In New Orleans, 16% of the homes required two or more thermostats. Rambling and spread out floor plans along with differing requirements for sleeping and living areas were mainly responsible.

The same situation existed in St. Louis where 15% of the homes require additional thermostats. In this instance spread out and irregular floor plans were the chief reasons found in the study that was conducted there.

A separate study was conducted on Long Island where land prices are high and split level homes are in great favor. Sixty-six percent will need two

(Please turn to page 160)

Can Cooling be added?

Yes, and here are practical step-by-step Checks to make sure the furnace System is suitable

by

Russell Hedrick*

HEATING AND COOLING are no longer two separate businesses. Installers with foresight are looking ahead to the cooling sale when they install heating these days. Such planning will insure future cooling installations which otherwise may be lost because of the extra cost of revamping a system for cooling later on.

This discussion, however, deals with the present and is offered as a method which allows you to determine definitely whether cooling can be safely added to an existing heating system where cooling wasn't anticipated.

We have assumed, in this discussion, you have already made a correct heat gain calculation with due consideration to solar loads, insulation, infiltration, and so on.

Your first consideration is the first floor living space. Take a good look at the supply registers and the returns. High sidewall registers have been found to do very well for cooling but make sure they have four-way deflection adjustments. Floor diffusers also have proved ideal for cooling. Low baseboard or sidewall supplies combined with low returns must be considered carefully . . . they can cause stratification (a pool of cool air low in the room).

It is just the same kind of separation which is a problem in heating. The heavier cool air stays near the floor, and the lighter warm air goes to the ceiling, all due to insufficient mixing. The result is that the occupant sits or wades around in a cold puddle of air up to his knees or waist with his head in a cloud of warm air. All of which is bad enough in itself because he is not comfortable; but to make matters worse, he also gets a high electric bill.

The "why" is simple. The thermostat is up above the cool air and, therefore, senses the building is not cool enough and calls for unit operation. The return air, that is being picked up off the floor, is cold, so the cooling unit capacity is reduced. The unit runs and runs because the thermostat isn't satisfied. The result? The electric meter spins and spins, and you get a "high bill" complaint.

The remedy is not always easy. Either a higher air discharge velocity, a good diffusion type register, or the addition of a return near the ceiling is necessary to get the air mixed. Care must be taken to make sure that high velocity discharge air does not strike the occupants.

The next and main consideration of the discussion is the available air delivery from the furnace and through the duct system with an evaporator (cooling coil) added. This evaporator must be located in the heat duct system on the discharge side of the furnace so that all air passes through it. Sometimes this will require minor changes in the ducting near the furnace beyond that of just removing a section of the trunk for installing the coil. Many experienced installers are making it a practice when changing existing duct connections at the furnace to add canvas connectors in order to obtain maximum quietness of operation.

Some important points of consideration about air requirements are these:

1. Most coils are rated for full capacity at 400 cfm per ton cooling.

2. Reducing the air delivery 10% below 400 cfm per ton (i.e. 360 cfm per ton) will reduce the total capacity only about 3%. There is a reduction in the unit's ability to reduce the temperature (sensible capacity) and an increase in its ability to remove moisture (latent capacity).

3. Too much reduction in cooling air cfm with resulting lower temperature will cause moisture to condense on the register face. Heat gain in the cooling ducts will be increased. And filters will have to be changed oftener. There won't be enough air to tolerate any appreciable reduction because of loaded filters before coil frosting or low-pressure cut-out occurs. Excessive air reduction will also increase operating cost.

There's no need to cross your fingers when adding cooling to existing warm air heating systems because there are specific and accurate checks that quickly reveal whether or not the system and its components are suitable. This discussion, prepared originally for Janitrol dealers, outlines a step-by-step method for checking first the air distribution system, air requirements, finally the furnace, motor and blower. Adding cooling to a warm air heating system is a particularly good method for modernizing homes. Since it's bound to become more and more important, it's essential that the oilheating dealer acquaint himself with what can be done.

4. Increasing the air delivery 10% will increase the total cooling unit capacity about 2½%. This increases the sensible capacity with a decrease in latent capacity and raises register air temperature.

5. When the air required for heating and the air required for cooling are approximately equal and will result in an air temperature rise of 100° during heating, the situation is ideal; but unfortunately, only a small percentage of the installations fall in this

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Oilheating replacement and modernization Feature

category. It is necessary, therefore, to establish some reasonable limitations and special considerations.

6. The National Warm Air Heating and Air Conditioning Association has established the reasonable cooling air requirements at 300 cfm per ton minimum and 420 cfm per ton maximum. Experience indicates that 360 cfm per ton is the most practical lower limit. The installer's judgment, along with the considerations given here, are necessary to make a selection.

7. The air requirement range for heating has been set by the acceptable temperature rise and the furnace capacity. A maximum air temperature rise of 100° and a minimum air temperature rise of 70° are the accepted limits. Again, the installer's judgment is required. In most cases, operation at the 70° lower limit produces drafty conditions and the results are undesirable.

TABLE I will be of help in establishing air flow for heating.

8. When the minimum acceptable air flow for cooling would result in an unreasonably low temperature rise for heating, a damper should be installed in the return duct so that resistance can be added during winter operation. The proper position should be determined after installation, and a stop provided and marked. The use of a damper for winter operation does not increase the electric bill because furnace blowers unload the motor when the air quantity is reduced by adding resistance.

9. When the maximum acceptable air flow for cooling would result in an unreasonably high air temperature rise for heating, the best method is to place a by-pass duct around the cooling coil to by-pass all or part of the heated air for winter operation. A damper is required and should be plainly marked for the winter and summer positions.

10. By keeping within the size ranges shown in TABLE II it is possible to make a blower adjustment to deliver the same cfm for cooling and heating which will result in a satisfactory comfort level. Combinations of sizes outside these ranges will require bypass ducts or dampers to provide a satisfactory year 'round comfort level with a single blower adjustment.

It remains now to determine whether a particular furnace with its installed system can handle the additional resistance of a cooling coil and deliver the proper air flow required.

Procedure for checking winter conditioner installations for addition of summer cooling:

Start with clean filters and all registers open.

This procedure assumes the standard factory installed blower drive exists.

1. Close motor pulley to full closed position. This will give highest rpm with the standard pulleys as shown on air delivery curve for a Janitrol furnace series shown as Fig. 1 for an example. Material and methods discussed here can be applied to any manufacturer's furnaces for which air delivery curves can be secured.

2. Replace access panel. Start blower with burner off. Use a slope or draft gauge and two rubber tubes with metal tube tips. Drill hole and insert the tube connected to the left hand side of gauge in the discharge duct approximately 2 feet from the take-off or turn. Drill hole and insert the tube connected to the right hand side of gauge in the return duct near the furnace. The pressure read on the gauge will be the total system static pressure.

3. Using the correct air delivery curve for the unit being checked, locate the static pressure found from Step 2 on the left hand vertical scale, move horizontally across until the correct rpm curve (Step 1) is reached, then move straight down to bottom scale and read cfm delivered.

4. Use the cfm selected for cooling determined from the heat gain calculation and the static pressure determined by Step 2. Calculate by the following method, the new system static which will result from the desired cooling cfm:

$$\text{Resulting system static} = \frac{(\text{Cooling cfm}) \times (\text{Cooling cfm})}{(\text{cfm from Step 3}) \times (\text{cfm from Step 3})} \times \text{Static pressure from Step 2}$$

5. The total required static pressure for cooling is then the static pressure from Step 4 plus the static pressure drop of the evaporator at the selected air flow rate.

6. Using the air delivery curve again, locate the cfm required for cooling on the bottom scale and move vertically upward until meeting the static pressure from Step 5 as projected from the left hand scale. The resulting point shows the operating characteristics required.

7. The required blower rpm is then estimated from the curves and the required horsepower is given by the first diagonal horsepower line to the right of this point.

The blower must be adjusted to this rpm and the proper motor size used. The winter air temperature rise is found by moving vertically upward from this point to the upper scale. If this temperature rise is between 80° and 100° satisfactory operation can be expected. Variation slightly or below this range can be corrected by adjusting for more or less air for cooling. If a very low heating rise exists it may be handled with a winter-sum-

TABLE I

Required CFM for each 10,000 BTUH Output at Furnace

Temperature rise, degrees ..	70	75	80	85	90	95	100
Air Required, CFM	132	124	116	109	103	96	93

TABLE II

Furnace-Coil Combination With Compatible Air Flow Requirements

Cooling	Air Requirements		Output at Furnace Btuh	
Tons	360 Cfm/ton	420 Cfm/ton	70°F. rise	100°F. rise
2	720	840	55,000	130,000
3	1080	1260	80,000	190,000
5	1800	2100	135,000	215,000

TABLE III

Standard Pulleys for Janitrol Units

Winter Conditioner	Motor	Blower Pitch Diameter	Open	4	Possible RPM Turns Open 3	2	1	Closed
FEC, FES60, 90 FHS65, 90	3.15″	1.9″-2.9″	7″	468	512	566	615	665	715
FEC, FES75, 105, 120, 150, 180	3.15″	1.9″-2.9″	6″	545	604	660	718	775	835
FHS125, 150	3.15″	1.9″-2.9″	6.5″	505	558	610	663	717	770
Special pulley combinations	3.15″	1.9″-2.9″	5½″	596	658	720	785	845	910
	3.15″	1.9″-2.9″	5″	655	724	793	862	930	1000
	3.75″	2.4″-3.4″	5½″	752	815	880	940	1000	1080
	3.75″	2.4″-3.4″	6″	690	747	805	862	920	978
	3.75″	2.4″-3.4″	6½″	637	690	742	795	850	900

Note—Blower noise increases with speed. Do not exceed 1000 rpm.

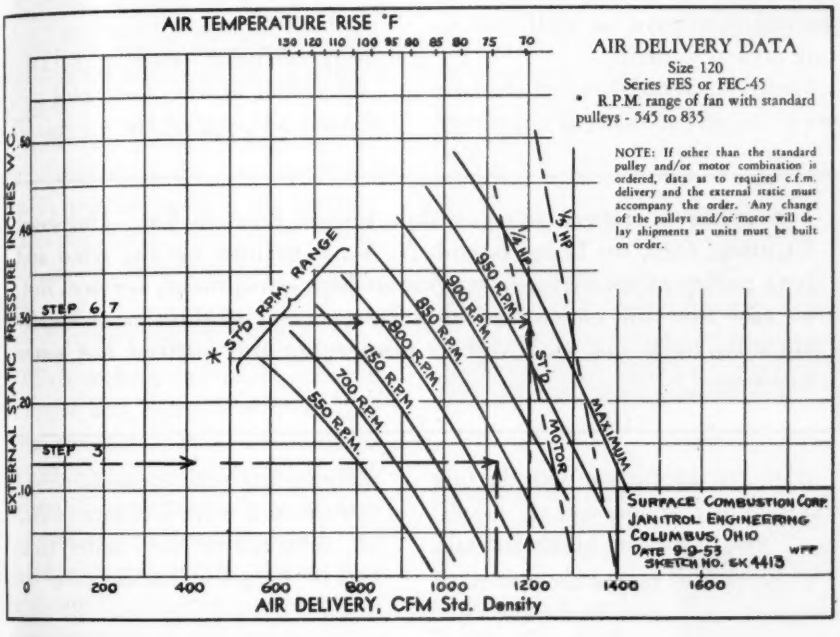

FIG. 1

mer damper to add resistance to the return duct.

The limit of damper closing must be determined after installation, and a positive stop must be provided. When the temperature rise is high and a 10% increase in airflow for cooling and heating is not sufficient, a bypass duct must be provided.

8. Selection of pulleys when rpm is outside the standard range can be made from TABLE III.

9. The following example is given to make this method more familiar: For illustrating procedure we are assuming that the installed furnace is a Janitrol FES 120-45. In this way the data charted in Fig. 1 can be used.

Required evaporator is Model 3EH rated at 1200 cfm

Step 1. Highest rpm with standard pulleys is 835 from Fig. 1

Step 2. Assume static pressure read is 0.13″ water column

Step 3. Cfm (see Fig. 1) is read as 1120

Step 4. New system static pressure
1200 x 1200 x 0.13″ - 0.15
1120 x 1120 water column

5. Total static pressure is 0.15″ from Step 4 plus 0.14″ from Specification Sheet for Model 3EH evaporator at 1200 cfm giving a total 0.29″ w.c.

6, 7 from Fig. 1 at 1200 cfm and 0.29″ w.c., the required blower speed is 975 rpm. Also the location of this point shows that the horsepower exceeds ¼ size motor so the motor must be changed to 1/3 as indicated by the next hp line to the right.

Step 8. The 975 rpm requirement will necessitate a pulley change. From TABLE III it can be seen that if the motor pulley is left at 3.15″ then a change to a 5″ pitch diameter blower pulley will provide a speed range of from 655 rpm to 1000 rpm. From figure 1 it can be determined that 1200 cfm will result in an air temperature rise of approximately 70°. This will not provide comfortable heating conditions in most cases. A damper should be installed to permit reducing air flow during the heating cycle.

Compromise Plans

Now let us consider what kind of an air delivery compromise can be used to avoid the complication of installing a damper to reduce the cfm for heating. Suppose we decide that satisfactory cooling can be accomplished with a minimum air flow rate of 1080 cfm (360 cfm/ton). (See TABLE I.)

Looking at Fig. 1, we see that with 1080 cfm the heating air temperature rise is about 76°. This is still low for most installations but for discussion we will assume it is considered acceptable. It is now necessary to repeat the procedure starting with Step 4.

Step 4. Now system static pressure is:
1080 x 1080 x 0.13 - 0.12 water
1120 x 1120 column

5. Total static pressure is 0.12″ from Step 4 plus 0.12″* for model 3EH evaporator at 1080 cfm gives a total of 0.24″ water column.

6, 7. From Fig. 1 the required blower speed is 880 rpm and the standard motor is adequate.

8. From TABLE III it is seen that a change is 5½ pitch diameter blower pulley will provide the necessary rpm.

If by the use of the above proce-

*This value was calculated in the following manner from specification sheet information which lists 0.10″ at 1000 CFM:
1080 x 1080 (CFM selected)
1000 x 1000 (CFM Spec. Sheet)
x 0.10″ - 0.116″ or 0.12″ water column.

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SEVENTH OF A SERIES

Quality Builders use oil Heat

Long Island Firm pioneers oilfired hot water Heater to add to its growing List of Accounts

by
William J. Stein

"OBSERVE THE TURTLE. He progresses only when his neck is out."

So reads a boldly printed sign gracing the office walls of Universal Utilities, Inc., Great Neck, N. Y. It's a slogan the company has used successfully to increase its fueloil distribution business by 20 times in the short span of eleven years since the present owners took over the 27-year-old business in 1945.

Among other things, Universal Utilities stuck its neck out to pioneer the oilfired domestic hot water heater in its territory. With the growth in number of oilfired warm air installations, Universal foresaw an increasing need for a related oilfired domestic hot water system, a need underscored by homeowners' complaints on high monthly gas or electric bills for hot water heating.

Universal's activities stimulated manufacturers to work for a trouble-free, oilfired hot water heater. They came out with some that provide the same quantity of hot water as an electric or gas heater but cost only half as much as the electric and 60% of the gas. Savings to the homeowner in operational cost are so substantial that the unit soon pays for itself with future savings assured.

Universal installed one of the heaters in the private home of a customer-builder. His satisfaction with the unit was such that he now uses the heaters in all new homes he builds for sale.

Universal has reaped the reward of its far-sighted action. In the last three years, the company has installed over 1,000 oilfired hot water heaters and the demand continues to grow. Two groups of homeowners are good customer prospects: the new homeowner and the regular oil customer who now has a gas or electric hot water heater. In addition to the sale of the equipment, there is the concomitant build-up of fueloil gallonage at the expense of other fuels.

But hot water heater installations are only a small phase of Universal's business. Its major function is the delivery of fueloil—more than 12,000,000 gallons of No. 2 oil, plus a substantial gallonage of No. 4 a year. The company has bulk storage facilities for more than a million gallons of No. 2 oil, delivered by deep water tankers and oil barges at the company bulkhead.

Integrated with the fueloil business, the company carries on a sizable business in oilburner installation including new homes, conversion and replacement burners. Like its interest in water heaters, burner installations are important to the company mainly as a major source of new oil accounts. And, to round out the slow part of the year, Universal has taken on the sale and installation of summer central air-conditioning.

Thirty-five vehicles make fueloil deliveries, carry the service and installation crews. Of these, 13 are tank trucks ranging in size from 1,800 to 5,000 gallons. Oil deliveries are usually restricted to a radius of approximately 12 miles. Radio equipment is now being installed in delivery and service vehicles. Fifty people are engaged in carrying on the various activities of the company. In addition to their wages, they are provided with a pension plan, hospitalization and medical plan.

Again, taking a cue from the turtle, Universal believes in making haste

Serving a critical market that knows how to buy, Universal Utilities, Inc., on Long Island, N. Y., functions on the tried and true policy of quality—in workmanship, equipment, service. But, to add new oil customers at a faster rate, it does occasionally stick its neck out as it did in pioneering the oilfired hot water heater.

Management *of Universal Utilities, Great Neck, L. I., N. Y., is under joint control of Perry Morris, president, left, and Charles Hollinger, vice president.*

slowly. No corner-cutting is allowed by this company which has built its business and reputation on top performance in installation work and service—in other words, on quality.

For the past several years Universal has sold and installed oilburners at the rate of between 275 and 350 a year in new homes. These installations are usually made within the company's operating area with the object of obtaining the fueloil account from the home buyer. Such accounts have been obtained in almost all instances and represent one of the important sources of growth.

With few exceptions, Universal specializes only in the burner installation in new homes. It is the practice, in this area, for heating contractors to do all piping, radiation, duct work.

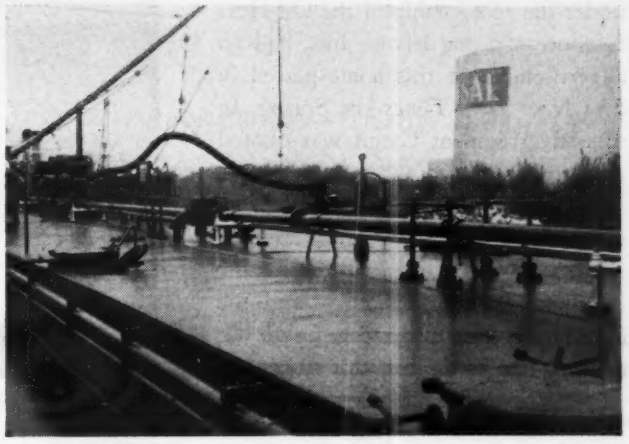
Concentrate on Quality

When seeking this work, Charles Hollinger and Perry Morris of Universal agreed that they would rather limit their work to quality type installations. Thus, although the work goes into some of the most expensive homes of the exclusive North Shore, they make many installations in moderately-priced homes where builders give more careful consideration to the heating systems. This generally coincides with the type of building going on in their operating sphere. The area has been very largely built up. Available building sites are expensive and are limited to either small developments or to the individually built home.

Hollinger urges dealers to concentrate on the quality of their jobs and provide only that kind of burner installation that will be good advertising for the business. The converse of this idea, in the long run, could do more to destroy the good standing of oil heat than the advertising of competitive fuels.

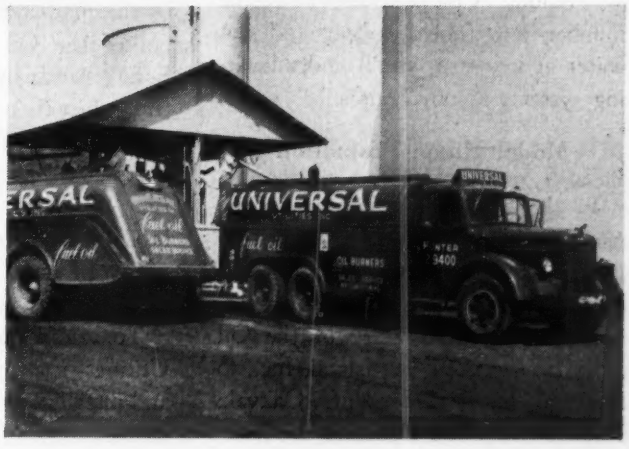
Builder business comes to Universal Utilities through their reputation for doing very satisfactory work and providing the kind of oil burner service that critical buyers demand.

Home buyers in this area usually prefer oil heat. Most of the inhabitants of the North Shore on Long Island are successful business or professional people. They know how to buy. Regardless of their ability to pay, they see no reason to waste money. Therefore, they insist on oil heat.



Direct delivery *of oil to company plant is made by tanker and barge at company bulkhead near storage tanks. Tanker, right, is being unloaded of some of the 12,000,000 gallons of No. 2 oil Universal will sell in a year.*

Bulk storage *tanks, shops, offices, left, are located on main highway where passersby note name and admonition on tanks to "aircondition now."*



Delivery trucks, *right, at loading platform fill-up for delivery runs, limited to 12-mile radius of plant. These are two of company's 35-vehicle fleet for oil delivery, service and installation soon to be radio-controlled.*

They also express the desire to deal with a person of their own choice. This steers them toward a local fueloil dealer whom they may reach personally by telephone. Some of these people, apparently, have had the experience of trying to get prompt service from a utility and not being able to talk to anyone beyond the dispatcher. As Hollinger says, "The wealthier people want top service; they want it now; and they want to talk with the boss about it."

To get oil heat into new homes Hollinger and Morris explain that, "Oil must be sold to the public—so that they want it." Of course it follows that the builder tries to comply with the customer's demands.

In this connection Universal Utilities actively participates in the program of the Oil Heat Institute of Long Island, Inc.

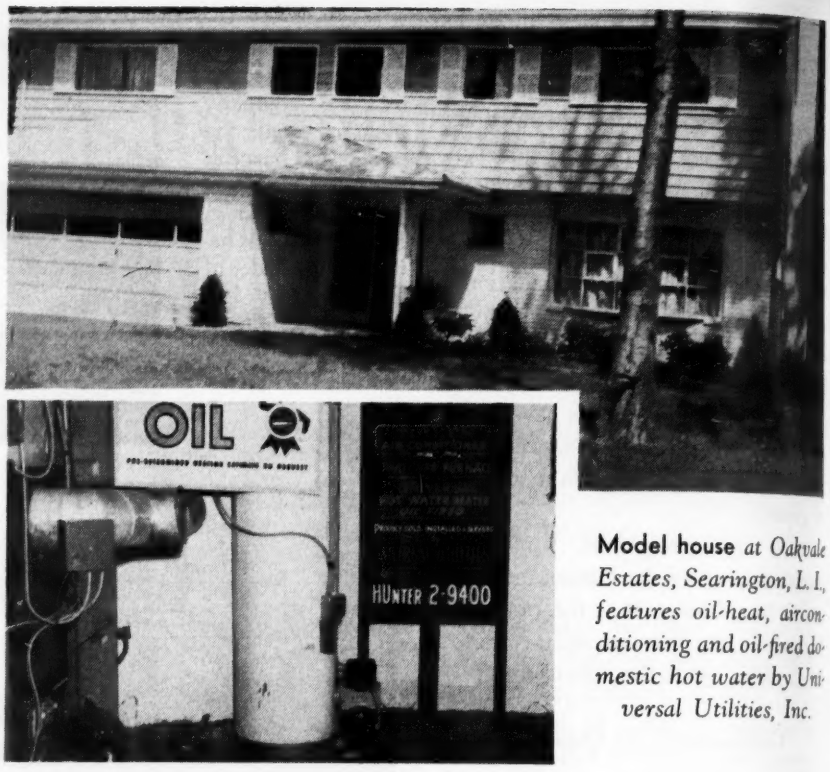
An examination of the jobs done by Universal Utilities reveals an interesting situation. In the model home at Oakvale Estates, at Searingtown, adjoining the North Hills section of Manhasset, N. Y., fueloil is used for both warm air heating and domestic hot water. The installation consists of a combination oilfired warm air furnace and airconditioning system. The oilfired domestic hot water heater stands alongside the furnace. Thitry-four such homes are planned in the vicinity by A. Cadiff & Son, builders. Cadiff,

under the sponsorship of the Oil Heat Institute of Long Island, Inc., had an advertisement of this home placed in *The New York Times* last Spring. In this advertisement Cadiff was quoted as follows:

"We use oilheating systems in all Cadiff homes for very good reasons. First of all, we are very proud of the high quality of our houses, and the home buyers seem to recognize an oil-heating plant as the best that money can buy. Secondly, house-hunters are more cost-conscious than ever these days. They're in the market for low maintenance costs. Since oil pays for itself year after year in actual dollar savings, it's a big attraction to a new homeowner.

"Oil also presents a clear case for comfort and convenience. It's fully automatic and clean, and the home-owner can do business with his own local dealer, instead of being the customer of an impersonal utility.

"As long as oil continues to be the number one fuel for heat and hot water at low cost, you'll find oilheating systems in our houses."



Model house *at Oakvale Estates, Searington, L. I., features oil-heat, airconditioning and oil-fired domestic hot water by Universal Utilities, Inc.*

Model Home Promotion

In the sales office, located in the model home, a copy of this advertisement is stapled to the bulletin board. Nearby is a letter from Robert M. Barr, executive secretary of the Oil Heat Institute of Long Island, Inc., to Bud Cadiff, builder of Oakvale Estates. The letter estimates the heating and hot water cost per month for this house as computed by an impartial and disinterested heating engineer.

Also on the wall is one of the standard display cards of the Oil Heat Institute. This is in clear view of all prospective customers. It is used as one of the selling features of the home and calls the buyer's attention to the value of oilheat.

On the salesman's desk, enclosed in a copy of the brochure of the house, is a "Fact Sheet." This enumerates the various monthly charges for operating the house. The last item is the predetermined heating estimate. In this instance it is stated at $26.50 per month (this includes the cost of domestic hot water). At the bottom of the page is the statement "Only oil *assures* safe, low-cost heat." This is accompanied by the character "Little Bill," the symbol of the Oil Heating Institute of Long Island, Inc. "Little Bill" points to the fact that oil is safe, dependable, clean and thrifty. Calling these important points to the public's attention, with the aid of co-operative builders who recognize the selling value of oil heat, is a valuable practice of this dealer.

To round out the year, Universal Utilities, Inc. has undertaken the sale and installation of summer central air-conditioning. They have been selling Timken airconditioning euipment in Nassau and Suffolk Counties. This business is viewed as being on a definite up trend. Within their own organization it serves the purpose of "rounding out" the slow part of the year. It enables them to maintain their staff throughout the year. It also enables them to more fully use their rolling equipment which might otherwise remain idle for part of the year. The added income from airconditioning is also of importance. Universal Utilities, Inc. finds that they have a ready-made market for airconditioning among many of their regular oil customers.

One of Universal's basic policies is to have satisfied customers. In addition to the service department they have one man who engages in "customer relations." It is his job to personally visit every customer periodically to inquire about heating, hot water or airconditioning problems. This serves several purposes.

First, there is the actual inquiry to find areas of possible dissatisfaction which are quickly remedied. Then, there is added that personal touch that makes the customer feel that he is not just a number or a card in a dealer's file. Third, this is a means of keeping at the pulse of the oilheating market in the community. Possible trends and customer attitudes are revealed. Fourth, this is an excellent way to obtain fueloil and airconditioning propsects among friends and neighbors of the customer. Fifth, it serves to reveal possible additional needs of the particular customer. For example, he may be considering an airconditioning installation, or he could be a prospect for an oilfired domestic hot water heater or a replacement oilburner.

Universal Utilities, Inc. gets 80% of its new business through recommendation from present customers. Hence, they do everything possible to keep their customers satisfied and keep their business growing.

The progressive nature of Universal Utilities, Inc. makes one look at the statement of the turtle and admire how he really gets around.

Accentuate the Positive

Oilheating advertising Programs analyzed to increase Effectiveness of Program's Appeal

by
Vernon G. Carrier*

The following discussion on spending advertising fund money both wisely and well for greatest effectiveness in oil heat promotion was presented by Vern Carrier at a recent meeting of the Oilheating Market Reports, Inc., New York, N. Y., and is given here in part.

WHILE advertising isn't classed as an exact science, we do know some things about rights and wrongs, do's and dont's. Millions of dollars have been spent to learn the right and wrong ways. The skills of advertising research have grown by leaps and bounds, establishing certain ironclad principles based on experience, case histories and testing of all kinds of advertising problems, including many that are quite comparable to the one we are discussing here.

OBJECTIVE

to convince the maximum number of people to heat with oil

In my end of the oil business, which happens to be advertising, we've learned to depend on certain yardsticks. There are ways of probing minds to learn how advertising may work, how effective it may be before we pay the bill.

Our objective in the advertising job we have to do is to convince the maximum number of people that they should heat with oil. And there are many ways to do this advertising—many ways to skin the cat. But to make my point, let's look squarely at two copy techniques that stand out clearly, the positive and the negative approach.

*Assistant Manager, Advertising Div., Marketing Dept., Esso Standard Oil Co., New York, N. Y.

In my opinion, the positive approach is best for many reasons: One—I don't believe we can afford to cheapen the industry, to lose public respect and acceptance particularly at this time. And my second reason is that, in the advertising business, we've found out that negative advertising often does more harm than good.

I know that when you throw mud you just get dirty or, putting it less delicately, nobody can outsquirt a skunk! Everybody gets hurt in the rock-throwing. And, funny thing, the public doesn't give a darn about inter-industry squabbles. They're much more interested in "what's in it for me?"

Now suppose we see what a few other industries have learned to do under similar circumstances to ours, what course some of the nation's canniest advertisers have charted in presenting their cases to the public.

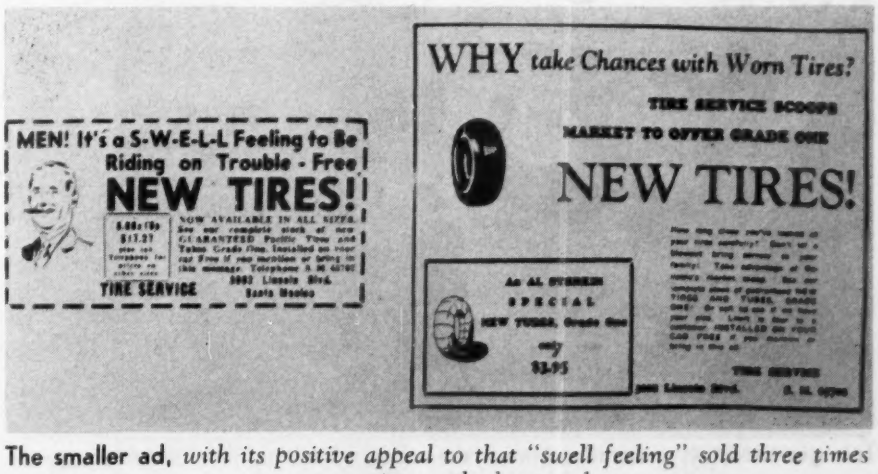
Cigarette advertising is a classic case. Recall the dreary days of cigarette scare advertising? "Guard the T-Zone;" "Not a cough in a carload;" "We're not medicine-men;" even "Reach for a Lucky instead of a sweet." You know what happened. They built their medicine-man into such a monster that they finally ended up hurting themselves and their industry with the worst possible publicity, the throat cancer scare!

Today? The accent is on pleasure—the joy and fun of smoking: "Mildness is a pleasure;" "Smoke for real;" "Live modern;" "For real, deep-down smoking enjoyment."

Why shouldn't we, in the oil heat industry, profit from that classic example of the dangers of bad advertising? Call it misguided, erroneous, stupid or what you will—by calling it "bad," I mean that cigarette scare advertising was bad for the industry. And there are others from which we draw a valuable lesson.

Perhaps in striving for a "new angle" the big beer advertisers latched onto the scare approach of calorie-counting. Ads like this were, no doubt, true enough but counting calories and watching weight isn't fun and beer drinking is. And so, before very long, the astute beer advertisers dropped the negative and once again accentuated the positive with warm friendly ads like the famous "Beer belongs" series showing wholesome folks having fun; scenes of pure enjoyment with not a calorie counter in sight!

And how has the wool industry met the onslaughts of the tough competi-


MEN! It's a S-W-E-L-L Feeling to Be Riding on Trouble-Free NEW TIRES!
TIRE SERVICE
WHY take Chances with Worn Tires?
TIRE SERVICE SCOOPS MARKET TO OFFER GRADE ONE
NEW TIRES!
SPECIAL
only $3.95

The smaller ad, *with its positive appeal to that "swell feeling" sold three times as many tires as the larger ad.*

"Guard the T-Zone"
"We're Not Medicine Men"
"Reach for a Lucky Instead of a Sweet"
"Nicotine and Tar"
"Guard Against Throat Scratch"
Smoke For Real
Live Modern
For Real, Deep-Down Smoking Enjoyment
Mildness is a Pleasure
SMOKE FOR REAL...SMOKECHESTERFIELD
Why PULLMAN is everybody's way to travel!
Follow the sun in new weightless wools
nothing measures up to Wool
You can feel like this... when you refresh with Milk

Some examples *of individual and cooperative advertising that has been effective. Note the contrast at the top—at the left, the scare advertising; at the right, the accent is on pleasure. In the center row, a good example how Pullman humanizes its advertising to overcome air line promotion. And alongside, the wool growers accentuate the positive for maximum consumer acceptance of wool and wool products. Bottom row, left, the switch in beer advertising eliminated calorie counting, substituted "What makes a glass of beer taste so good?" And, finally, an excellent example of The American Dairy Association's approach to convince people they "never outgrow their need for milk."*

The gas industry, *generally, knows the value of selling in a positive way as witness these examples where the approach is rather restrained.*

tion from man-made miracle fibres such as orlon, nylon, dacron and so-on? With dignity and good taste in ads that stress all the good points of wool apparel.

The independent electric light and power companies have an axe to grind. They are opposed to government control of power supply and government distribution of electric light and power. But they found that the best way to get the story across is in terms of the total benefits electricity provides —and they bury the "gripe" way down in the ad. They accentuate the positive because they have found that it is good business to do just that.

There are many other areas of competition. The Pullman Company talks about "Arrive refreshed" and "Travel extras." Certainly, as a branch of the railroad business they are competing mightily against the air lines for that important dollar spent to take you "from here to there."

Deeper studies of motivation reveal that people tend to turn away from unpleasantness in advertising, things that are subconsciously distasteful. They seek the pleasant, the positive. Substantial evidence of this psychological fact is found in the case of insurance advertising. A research study shows that ads with a strong negative approach (which surely is a "natural" for selling insurance) caused people to react violently. They didn't want to "see" their child carried away from a blazing house in the arms of a fireman. They didn't read the ad. And so today we find positive appeals.

And now let's look right in our own backyard.

None of us will deny that the gas industry has something to sell. But do we find them slinging mud at other fuels? Under the circumstances we find claims for gas are handled with

CLEAN as a Fresh Snowfall!
MODERN FULLY-AUTOMATIC
OIL HEAT
COSTS LESS, TOO!
and modern Oil Heat is
SAFE
WRITE FOR THE FACTS ON SAFE, MODERN, AUTOMATIC OIL HEAT!

These examples *of cooperative oilheating advertising are competitive, yet they emphasize fueloil's basic qualities and maintain an air of dignity and sincerity.*

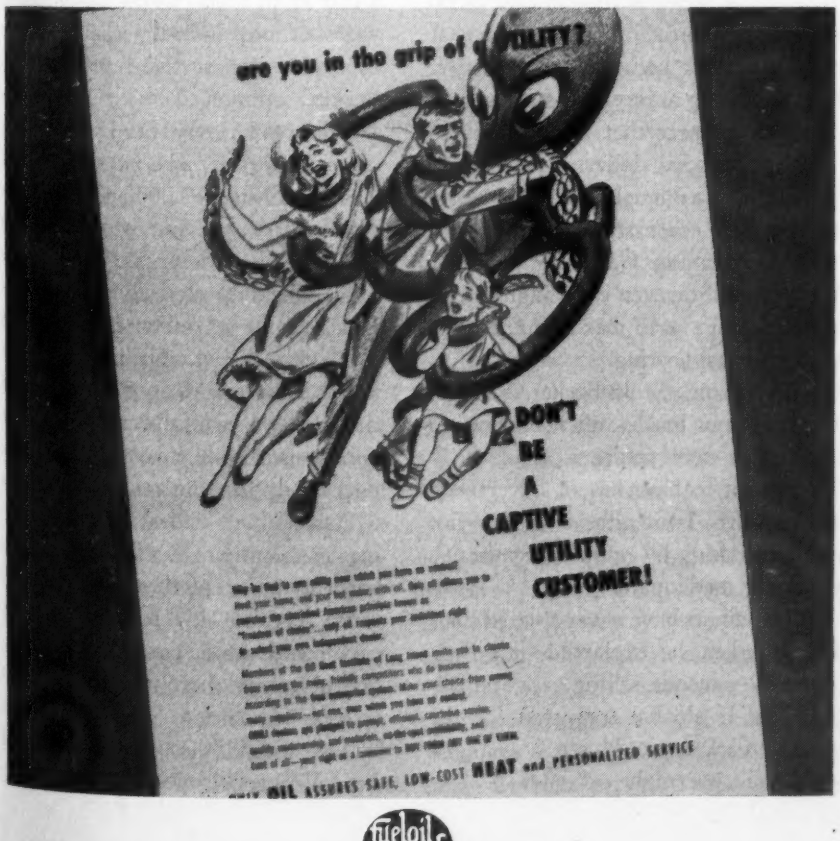
considerable restraint. And because they're believeable and sincere, they "get through" to the public. It's another case of "best foot forward."

Granted you don't sell beer or wool or cigarettes, but these great ad-wise industries know that it's good business to accentuate the positive in advertising. They have learned some of the pitfalls of negative, scare advertising. Negative advertising is a high, tight wire that can only be walked with greatest skill and care. Now let's see how the oil heat industry's advertising to date stacks up against the picture we've painted so far.

Have we, in the oil heat business, fallen into the trap of bad advertising? And, if so, how far? The answer to that is vital since it affects the best use or dissipation of precious funds that must be spent for the good of all of us.

An analysis of our advertising to date leads me to feel that we're somewhere in the middle. Much of it is good. But let me cite a few examples of advertising that, in my opinion, may be hurting the industry and, also in my opinion, are not doing a good selling job. We find in one ad "captive utility customers" peering from be-

(*Please turn to page* 158)



An example *of what is cited as misguided advertising. Studies show that people naturally avoid unpleasantness or things which subconsciously are distasteful.*

St. Louis without the Blues

OHI *Dealer Management Conference sets the Stage for Growth in '57*

Competition from gas may have slowed oilheating's growth in some areas but the industry is still expanding at a rate to be envied in many lines of business, 92 of the country's key oil dealers were told at an OHI Distribution Division Round Table Conference in St. Louis.

The question of gas competition and its answer—harder selling—were among industry topics explored at the session which covered problems of today and forecasts for tomorrow. The general conclusion: There's plenty of room for sound development of oilheating despite any and all competition.

IT WAS A spirited group of key oilheating dealers that met in St. Louis on February 20 for the Second Regional Round Table of the Oil Heat Institute's Distribution Division. A half dozen industry experts explored as many topics during the day for the benefit of 92 oilheating and fueloil men who had come in from considerable distances. They came, in fact, from 14 states and the District of Columbia . . . Washington State to Washington, D. C., and from Kansas to Massachusetts.

Burkhardt

These men would take back to their local chapters or groups a lot of the points discussed, thus greatly enlarging the influence of the conference. The principal explorations of the day were along the lines of gas competition, delivery methods, selling more oilheating, budget plans, growing through service, and future forecasts.

In opening the conference, Charles Burkhardt, national secretary of the Distribution Division, welcomed the gathering, explained its purposes and introduced Fred Heaney of New York, the Division's chairman, who then conducted the day's meetings.

With one of the hot topics for the day, Jack Becker of St. Louis opened up on gas competition, speaking as one who's been through the mill for years. Becker is president of the Becker-Marsden Co., president of the local OHI chapter and vice-chairman of the Fueloil Committee of API.

He first recognized that there's a great diversity in the detail of gas competition by markets. There's a long swing in price ranges, in local market conditions, in subsidies and service policies. If his presentation were to be capsuled into a single statement it was his remark that—"Your own merchandising efforts should not be too much influenced by what gas does."

He told the St. Louis story. In the 1920's gas was a luxury fuel. The 1930's brought a mixed gas at only 50% above the cost of oilheating. Then with the '40's came straight natural gas at a time when oil prices were starting their sharp climb. Today gas is a third cheaper, assuming of course equally good installations.

Hard selling for oil heat should take place in any market, he thinks, before gas gets too strong . . . waiting loses the market. From another viewpoint, though, he sees gas competition as no different from the oil competition that you've always had, if it's aggressive. Sell oilheating at any time by convincing the prospect that it provides the best use for his dollar. You're competing just as much, or even more, against fur coats and new cars and trips to Bermuda. Gas is not our only competition, or even our toughest . . . our challenge is to make more people aware of fine heating.

Advertising, thinks Becker, is a must or you're out by default. The man on the street says you're a dead duck. We've got to have lots of advertising that sells the basic oilheating idea, not the advertising by refiners because it's woefully inadequate.

The refiners have never created their own market, he explained—it's been done by someone selling cars and oilburners. If alcohol competed for the motor market, you'd see a changed viewpoint overnight.

The refiners' assistance in the local campaigns now working through OHMR (Oilheating Market Reports) is the most significant move in the right direction, he went on to say. "If you're going to whip gas nothing helps like real cooperation; an aggressive attitude rubs off on the public. But if the industry acts whipped just because gas may be cheaper, it soon will be."

St. Louis oilheating has grown every year in spite of fuel costs. When gas was costing 35% more the utility sold hard, "It's better," so we should take a leaf from them. In the development years of our industry there was no room for sissies; there still isn't, in Becker's opinion.

Last year in the St. Louis market oil got 2,500 new jobs, gas took 10,000. They had listed 17,000 applicants palpitating for gas but a lot of them backed away. The primary reason that local oilheating men always get business in spite of other cheap fuels is that a cooperative advertising program for years has held up their spirits. In the past two years the campaigns have been considerably enlarged through refiner's help in connection with OHMR.

Asked about oilheating dealers selling gas equipment, Becker sees no harm in it except that you won't sell much because it's hard to make a profit on domestic gas installations . . . and of course there's no fuel business to look forward to.

The second discussion leader was Pete Wenzel, Quick-Heat Div., Sin-

clair Refining Co., St. Louis, with a particular interest in fueloil delivery problems. To show how little the customers understand what we do for them he had the classic example of a lady calling "That confounded whistle on my tank is blowing again; you'd better get out here and fill it up." When the dispatcher told her to look out the window she nearly fainted at seeing the oil truck, couldn't understand how it got there so fast.

It might seem trite to explain the advantages of automatic deliveries at this late date, but not when you notice that a fourth of oilheating users in the nation still have to watch their tanks and call in.

After describing his company's methods which are refined to the point of working within 25 degree-days of the absolute calculation, he made a strong point. "Degree-day methods have increased the capacity of our trucks 25% to 30%."

Their delivery problems in the St. Louis operation mostly arise from bad credits. A C.O.D. account will call in on the coldest day for 100 gallons. It means a special delivery and then maybe the man walks off to the store while the driver is there, so he has to wait to find him.

The Oil-Gas Headache

St. Louis has several hundred combination oil-gas burners, and they are the biggest headache from a delivery standpoint—you never know when they'll be out and neither does the owner.

Wenzel's drivers start out with Addressograph type tickets with full instructions on every drop, but then the man on the truck does nothing with the ticket after the meter printing. He leaves no ticket at the house. It is calculated in the office and mailed. This saves errors, saves money by not holding up the expensive truck and driver.

Fred Heaney, conductor of the day's sessions, also took one of the six topics, "Increasing the Sale of Oilheating Equipment."

He told the group that before coming into the New York market he had been a protege of Jack Scott (Buckley & Scott, Boston) who had brought the first oilburner into New England.

Industry experts *who addressed* OHI *Distribution Division Regional Round Table in St. Louis were (standing, l. to r.) T. R. Loizeaux, Loizeaux Fuel Co., Plainfield, N. J., and* OHI *vice chairman for the East; Jack Becker, president of Becker-Marsden Co., president of the local* OHI *chapter and vice chairman of the* API *Fueloil Committee; William Raith,* OHI *vice chairman for the Midwest; and Pete Wenzel, Quick Heat Div., Sinclair Refining Co., St. Louis. Also (seated, l. to r.) Fred Heaney of New York,* OHI *Distribution Division chairman, and Tom Carson, executive secretary,* OHA *of Maryland.*

Scott had convinced him that there is only one place to make money in the oilheating business and that's selling, and to sell you must advertise.

In New York, Heaney first spent 2% of his expected dollar volume of heating for advertising. In 1954 sales dropped off so he pushed it up to 5%. This year he's spending 6%. In bookkeeping, he charges the same original 2% to the oilheating equipment department and the other 4% is charged to fueloil sales expense, since that is the more profitable division.

After oilheating had done the job of selling automatic heat, gas came in and took 20% of New York's new installations in 1954, then 35% in 1955 and 52% in 1956. They did it by hard selling including heavy advertising. He estimates that the gas industry will spend a million dollars in the market in 1957 and may get 60% of the new jobs.

If they reach that ratio, the remaining 40% will go to the dealers who do a job of sales planning and advertising of oil heat.

For the individual oilheating and fueloil dealer he recommends spending for advertising among the media in this order: 1) Classified phone directory; 2) Newspapers; 3) Cooperative advertising in OHMR campaign; 4) Radio; 5) Direct mail. Radio, he feels, costs about the same as direct mail and in a smaller community is often better than the newspaper.

He uses telephone canvassers consistently. True, he knows that folks are getting tired of it, particularly in the evening which has been killed by TV. He finds that morning is the best time . . . with more kids these years folks are up. Canvassers are married women calling from home. They get $15 a week plus their extra phone bills, then get 3% of the salesman's commission on deals closed.

Heaney has two canvassers on phones and two men canvassing on foot. If it's a rainy day those two also get on the phone. Every sale is coded as to its origin or source. Newspapers lead with 40% of total selling influences; direct mail is weak unless you have an unusually good piece of literature, something extra dramatic.

Then his company pays to service men 15% of the salesman's commission on whatever leads they turn in and are later closed. Last year replacement sales from servicemen's leads came to $74,000.

Heaney recalled that the January issue of FUELOIL & OIL HEAT showed

oilheating salesmen as typically earning $5,700 to $6,300. His men make more; they have to, and part of this is accomplished by giving them extra bonus or incentive in the weaker months of the year, "to keep him out of movies."

Because 90% of the new oil accounts come to Heaney's company through his new equipment sales, he never advertises fueloil, only oilheating equipment. A great advocate of service contracts, he has 78% of his oil users under this arrangement . . . won't be satisfied under 85%.

Budget Plans

William Raith, OHI vice-chairman for the Midwest, was the next discussion leader, to explore fueloil budget plans and credits. He pointed out that America has become time-payment conscious, so budget plans should be more popular than they are.

These are some of the advantages to a dealer:

1) He has money ahead in summer to fill and carry his storage.
2) It's easier for most anyone to pay $15 a month than larger winter monthly bills, and they're less interested in other fuels.
3) Few budget customers complain about the amount of oil used in any month; straight charge customers often do.

Raith's firm, Seidel & Co., St. Louis, allows the customer to start monthly budget payments in any month from June to September, but they all must end in April, leaving May to calculate balances. Some customers skip January, a few December and January but this must be in the plan at the start. Anyway, eight months is the minimum for payments.

If the budget payments indicate a refund in May this is paid by check for psychological reasons. If there's instead a debit balance they expect this to be paid before starting the new program.

To estimate budget payments for a new customer they have a rule-of-thumb of 220 gallons per room for the season; the next season it's adjusted.

Raith has 17% of oil accounts on budgets which is typical. Francis Schuster (Troy Oil, Indianapolis) stated that his company has 40% and that the company runs ahead in dollars until January. William Allman (Dalton Coal, Gary, Ind.) pointed out that if budgets start in June and the customer takes five or six deliveries a year the dealer is holding customer money to the end of the season.

In discussing credits and collections generally, Raith noted that the local department stores have very lenient credit practices which make it tough on fueloil men. The stores do not call or see the customer until an account is 90 days overdue. Oil men by contrast need the money and must maintain a vigilant credit attitude.

In making credit investigations the company takes special note of the number of chattel mortgage obligations, because the family will nearly always pay them promptly and let open accounts wait.

Effective Service

The final discussion leader at the morning session was T. R. Loizeaux of Loizeaux Fuel Co., Plainfield, N. J., and OHI Vice-Chairman for the East. His discussion centered on the importance of effective service to the industry's future.

As an interesting approach he took the angle that the most important, yet neglected phase of retail oilheating, is selling. He noted that most of the time spent by the boss in a retail fueloil operation is taken up with a multitude of details from buying trucks to collecting bad debts. By contrast he finds that when the head man puts his major emphasis on a good selling program you find a profitable operation. It is easier to get the less important job done by employees.

In explaining why he started with selling when his subject was service, Loizeaux's point was that service can make or break a selling program. Looking back in his own company he noted that in the 15 years prior to World War II he had built up the largest fueloil business in his market without burner service. This had been a substantial coal operation. Then he bought out a Timken dealer and started burner service with the result that since then expansion has come mostly through the facility. In the 10 years following World War II fueloil volume grew 180%.

Loizeaux said a very well known dealer in another New Jersey town, was active in civic affairs and doing considerable promotion but without burner sales and service. This man has shown no growth in the past two years and has not made up a continuous loss of his coal business. Into the same town came an experienced oilheating man with a sales and service background concentrating on selling equipment. This man bought a small oilheating company and in the two years has increased the business over 100%.

Loizeaux mentioned the popular brand of trucks that he was buying 10 years ago largely because he was personally acquainted in civic functions with some of the manufacturing officials. But he quit this brand because he had to go too far to get service. He switched to another make and had a good service garage with men always on the job and he has stayed with the new brand of trucks for eight years.

Loizeaux pointed out that his son is now in the business after a stretch in the armed forces and four years at Lehigh and he has put him in charge of his service department. He believes he has him in the most important spot to really understand the business.

Service Essentials

The two most important considerations in service he believes to be:

1. Selling the service contract. 2. Complete customer satisfaction. Loizeaux thinks that fully as much effort should be given to selling the service contract as selling fueloil. He likes to put the price of the service contract together with the estimated fuel cost and combine these into a monthly budget contract, incidentally he is a strong believer in life insurance protection for the unpaid budget contract installments.

His view on customer satisfaction is that it is more difficult to deal with a customer on service than selling fuel-oil. The customer with the service problem is like a sick person and needs careful handling.

On the other hand, he finds that it is amazing how much appreciation you get when you render fine service. It's

a good service department that can keep down arguments and also avoid casualties. If a customer complains about a service charge the manager says, "Well, we'll leave it up to you to pay what you think is fair." They believe, however, that any good service department should charge enough to carry expenses. When he was asked what he includes in that statement Loizeaux said that this should embrace all direct expense and all overhead identified with service but not necessarily the administrative overhead of the company. He feels that if the department can help on administrative overhead that's fine but you shouldn't consider the department as losing money if it carried everything else.

Speaking again of his own company, he has five service trucks operating or one for each 1,200,000 gallons of retail oil sales. In the summer he expands the service and installation crew to get the furnace cleaning done by early fall.

His final comment was that without an adequate service department he would not have confidence in the retail fueloil business in the Plainfield area in either the immediate or distant future.

Look at Future

Tom Carson, executive secretary, OHA of Maryland, looked back over his 32 years of experience in the industry to make observations on what the future might hold.

To set the theme of his talk he outlined a speech made by James Dyer, president, Sinclair Refining Co., at an API meeting about two years ago. In that speech Dyer had traced the growth of the middle distillates and had said that their importance had long been overlooked.

Other points made by Dyer included: Oilheating industry has grown up; Independent resellers have done an excellent job of selling fueloil; Natural gas utilities were using the same tactics used earlier by fueloil distributors; Natural gas was (and is) priced unrealistically at the well and could not long remain in this position; and he appealed to the suppliers of the nation to aid and assist all fueloil marketers in each individual market where such assistance is needed.

Carson said each of these points are just as true today as they were when the speech was originally made.

He quoted from Socony-Mobil's publication, Mobilheater, which answered a distributor's question about his future thusly: "Gas heating has been growing . . . since 1950 the growth has been about 125% . . . but during this same period oilheating installations have increased 82%. . . . Gas competition has slowed the growth of oilheating in a number of areas, but the industry is still expanding at a rate which could be envied in many lines of business."

Heating's Growth

Carson attributes the growth of the comfort heating field both to the increase in population and bettering of the national standard of living—one third of the total energy consumed in the nation is used for heating. Neither gas nor fueloil could meet this tremendous demand.

"For instance, the big heating market of the east coast is now served by five pipelines. If gas were to attempt to take on the maximum heating demand of this area, and meet it day by day in the heart of winter, no less than 17 additional pipelines would have to be built."

He said that he had been informed that a number of insurance companies already feel that they have sufficient pipeline investments and that with this limitation it seems impossible for gas to grow so fast as to have critical consequences upon oilheating.

He pointed out that it has been estimated that gas will outsell oilheating in 1957 and 1958, but probably not beyond that. Another factor mentioned by Carson is that it is reasonable to suppose that gas cannot remain at its unrealistic price at the wellhead, despite existing governmental control.

Carson then discussed his experiences in the Baltimore market where in spite of the tough problems resulting from cheap natural gas the industry has mobilized and is fighting back. One of the activities which he described involved legal proceedings to remove the road block of gas main subsidies to builders. This litigation will be carried through as many courts as necessary to correct the discriminatory situation, he emphasized.

Dealers in Baltimore are keeping the market clean to protect their earnings and also to be ready for the day when pipeline subsidies are no longer and gas is more realistically priced, he said.

Carson made some recommendations: He suggested that there be more intensive collaboration between major suppliers and oilheating equipment manufacturers and cited Esso Standard Oil and Servel as an outstanding example.

Continued research on the part of suppliers to improve fueloil and thus lessen costly and annoying burner service requirements is necessary he said. Reasonable retail margins are also a must.

Carson feels that dealers must realize that their relationship with suppliers is not an unfriendly one nor in any sense conflicting. He suggested that the Oilheating Market Reports program be expanded and additional support from both suppliers and independents be given in all areas where natural gas is either present or projected.

Policy Committee

His last recommendation proposed that a joint advisory committee be formed to study the overall problems of the industry from the viewpoint of making future policy.

Carson feels that there is extreme difficulty in certain communities, but when the whole picture is examined there is no ground for pessimism. He pointed out that suppliers are investing millions in refining and distribution facilities of middle distillates and that this is a concrete expression of confidence in the future.

He concluded by saying that our problem is not an easy one. "We are at work against a formidable adversary in the shape of the American Gas Association and there will no doubt be other competition from electricity, heat pumps, etc., but all in all, the growth of the nation plus a compounding need for energy gives plenty of room for the sound development of the oilheating business of this nation."

Product Trends at Chicago

Elaborate displays focus visitors' Attention on great Advancements in Equipment

by
J. W. Schulz

THE 13TH INTERNATIONAL Heating and Airconditioning Exposition, at the International Amphitheatre in Chicago February 25 to March 1, turned out to be about six shows in one.

A man interested only in oilburner controls, for example, could study them the five days the show was open. New trends and new styles attracted attention in the booths of many control manufacturers. Primary controls are providing shorter trial-for-ignition periods for oilburners above domestic sizes and having straight-electric ignition systems. The show exhibits proved that lead-sulphide cells have gained great popularity, won more friends among control manufacturers, for monitoring both gas pilots and oil flames of commercial-industrial oilburners.

Fashions in heat controls for homes are improving rapidly, the show exhibits proved. Additional lines of controls include set-ups for boosting indoor temperatures, instead of permiting them to droop, as outside temperature become lower. A new control system causes oilburner "on" periods to become longer as outside temperatures become lower—is aimed to gain fuel economy by avoiding needlessly short "on" periods on days when most fuel is burned, yet give ultra-smooth heating on mild days when burners run few hours per day.

Zone heat-control for homes has been given increasing attention in recent years, and at the Chicago show this trend was evidenced—especially in one display which boasted its brand-new equipment "smashes the price barrier for zone control."

Also brand-new was a "fashioned-styled push-button heating-cooling thermostat," perhaps inspired by the new control buttons for automobile automatic transmissions.

Indicative of the increased use of systems which provide both winter heating and summer cooling, the Chicago control exhibits contained many new systems, thermostats, relays, etc. to integrate the control of year-round airconditioning.

Interested only in controls, then, a man could study them only for the five days the Chicago show was open. Similarly for domestic heating systems, commercial-industrial heating, package boilers, cooling equipment for homes, and airconditioning equipment for big jobs—a man could concentrate on any of these the five days the show was open. Heat pumps and water-chilling equipment for airconditioning also could take a man's full-time interest at the show. Thus the Chicago show was gigantic; it was about six shows in one.

This show write-up and the accompanying photographs are the result of sampling the show; space available for this article is small compared to what could be said about the hundreds of striking new products exhibited at Chicago. What follows in this article, then, amounts to sampling and is not coverage of all the important new products displayed at the show.

Armstrong Furnace Company came to Chicago with a new development definitely of great interest to lovers of the best oilburner performance. To such men, combustion chambers are all-important, for maximum CO_2 readings and minimum smoke-instrument readings are dependent on proper design and construction of combustion chambers.

Jet-age combustion Chamber

Armstrong Furnace Company announced and displayed its "Ceramiflex—the jet-age combustion chamber," calling it "another Armstrong first." This combustion chamber is reported to be made of a new material first used by the Air Force as a liner for the exhausts of jet engines.

This material, Armstrong Furnace says, is made of the same ingredients as the highest grade refractories, but is fabricated by a new process which spins the ingredients into fibers; these are formed into a felted mat which resembles ordinary low-temperature insulation. The Ceramiflex combustion chamber at the show did look as though it was made of rock-wool or glass-wool. The Armstrong Furnace booth attendants said it withstands 2000°F. and flame impingement, is flexible and cannot be broken or cracked in shipment, and weighs only 5% as much as a chamber made of conventional firebrick.

Used in warm-air furnaces made by Armstrong, the Ceramiflex chamber is of great interest to oilburner enthusiasts because, though seemingly highly practical with respect to easy application to furnaces and to shipment, its nature promises extremely high flame and combustion-chamber temperatures which should be reached almost instantly after burner start-up.

Pre-fab Chimneys

The Chicago show had many exhibits devoted to solving problems of providing proper draft for furnaces and boilers. Heating industrymen, and oil heat equipment dealers particularly, are now giving much attention to the problem of providing all-fuel chimneys at minimum cost. A new trend lies in the oilheating dealer's providing the chimney, prefabricated type, as well as the heating and air-conditioning system for a new home.

The oilheating dealer gains two advantages. First, he adds to his business volume and profits by adding the chimney equipment to the line of heating equipment he sells. Second, he gains an advantage in fighting gas heating; the prefabricated all-fuel chimneys he sells cost less than conventional masonry chimneys, and this reduces the economic advantage gained by installing Class B stacks suitable for only gas.

Indicative of the increasing popularity of all-fuel prefabricated chimneys, and of heating men's interest in such chimneys, considerable equipment to build these chimneys was on display at the Chicago show.

Condensation Engineering Corp. featured the "Vitroliner—the Superior Chimney" for homes and commercial buildings, in sizes from 6" to 12" flue diameter, and UL listed for all fuels including oil, coal, wood, and gas.

General Products Company showed its Air-Jet, an all-fuel, aluminum packaged chimney featuring a chimney top like that of a brick chimney. The Air-Jet line includes 6", 7", and 8" smokepipe sizes, and seven chimney tops.

Van-Packer Company was at the show with its factory-built masonry chimney for all fuels, and declares its 7" diameter flue developed 34% more draft than a conventional 8" x 12" tile-lined brick chimney during comparative performance tests.

Van-Packer makes prefabricated refractory stacks for commercial-industrial applications, in seven sizes from 10" to 30" diameter.

Cooling—combined with Radiation—is here! *Remotaire room unit self-contained year-'round airconditioner as displayed in American-Standard's booth at Chicago is admired by Nick Richfield (left) of the company's oilburner department and Gene Olson, chief engineer, Delavan Mfg. Co. Remotaire heats or cools, ventilates, exhausts stale air and filters. The unit provides individual room temperature control for heating supplied through use of a steam or hot water coil which can be connected to a central heating system and for cooling from a self-contained air-cooled refrigeration circuit in each unit.*

Advantages

In over-all these prefabricated or factory-built all-fuel stacks are of great interest to oilburner dealers because they cost much less than usual masonry stacks, insure freedom from chimney-fire hazards, are exceedingly easy to install, and provide exceptionally dependable draft and thus avoid the chimney-draft problems which in the past often proved both annoying and expensive to oilburner dealers.

L. J. Wing Mfg. Co. brought big news to the Chicago show. It is adding domestic draft inducers to its well-established line of commercial-industrial draft inducers. The new size 10-D inducer at the show has capacity for up to 4.5 gph, is for horizontal or vertical mounting in the breeching, and is powered by a 1/28 hp, 1550 rpm motor. A new smaller size 8-D inducer soon will be available for oilburner maximum firing rate of 2.0 gph.

Airtemp Division of Chrysler Corp. had exhibits in enormous display booths, located most advantageously. Domestic and commercial-industrial year-round airconditioning equipment of many types filled the booths. The big point of interest for show visitors was, however, an automobile—a convertible equipped with an Airtemp car airconditioner to provide summer cooling. The literature on this brand-new car conditioner says it fits most cars, can be removed from your old car when that's traded in, and can be installed in your next car.

"Airtemp has a nationwide network of factory-trained airconditioning specialists to give prompt efficient service when required," the literature on this car airconditioner also says.

In Chicago Iron Fireman gave details of its new low-pressure gun-type electric-ignition MicroMist burners. These are made in models for No. 4 oil; and in models equipped with 500-watt electric oil heaters, capable of burning the heaviest No. 5 oil. Both models come in two sizes, one for 3 to 15 gph, the other for 3 to 25 gph. Their flames can be on-off of fixed size, or high-low type, or modulating type.

The most important part of a MicroMist burner, Iron Fireman declared, is its positive-displacement two-stage supercharger. New and unique, this has opposed pistons to handle simultaneously the fueloil to be burned and a certain amount of primary air. The two-stage supercharger provides important compressor action which raises the temperature of the fueloil and the primary air and, the explanation goes, assures complete atomization and carburetion of the fueloil before it reaches the nozzle.

Installation work is reported to be simple, easy, and inexpensive because the MicroMist burner needs no gas for ignition, no checkerboard firebox floor, no boiler front plate, and no auxiliary pump-set. The burner is said to need little attention because it has no atomizing cup that needs regular cleaning, and no high-pressure nozzle that can plug or need changing or servicing. Though designed for low-cost heavy fueloil, this burner can be switched to lighter oil without changing its adjustments; its Volumeter oil-rate control provides the same, desired gph firing rate regardless of lower or higher viscosity of the fueloil.

The domestic Hart pressure burner that was being fired at the exhibition had something new in the form of a rudder for the air-stream leaving its blower wheel. As was demonstrated beautifully, adjusting the rudder with the burner firing centered the flame in the firebox, or made it lopsided to either the right-hand or left-hand side of the firebox. The rudder air-control, affecting the flow of air through the burner's gun tube, can compensate even for a nozzle that gives a lopsided fire in a burner of usual design.

Made by the Hart Heat Division of Avery Farm Machinery Co., these Hart pressure burners are supposed to be absolutely free of flame-pulsation tendencies. They are supposed to run with over-fire draft almost zero; they need firebox floor area of only 70 sq. in. per gph fired; they work best in boilers and furnaces having no air leaks. These points and others were emphasized at the show to prove Supra-Flame Hart pressure burners cannot give flame-pulsation trouble.

Humidifiers

Walton Laboratories, Inc. does not believe in fooling around when handling humidification problems—does not believe in sending a boy to do a man's work. The Walton men, specialists in humidification for over 25 years, use a motor-driven atomizing disc or plate to achieve high-capacity humidification, and at the Chicago show announced their new Series W power humidifiers for duct-type heating plants. Model WJ is for maximum output of 12 lbs. of water per hour, while Model WT is for maximum output of 24 lbs. of water per hour.

For a warm-air supply duct handling more than 4,000 cfm, two or more Series W power humidifiers are installed. Walton offers excellent, convincing technical literature for airconditioning contractors and oilburner and heating equipment dealers.

Wheelco Instruments Division, Barber-Colman Company, used the Chicago show to announce its Model 1574 Super-Duty Automatic Flame-otrol. This is an electronic combustion safeguard system which provides sequence timing for any type oil or gas-fired burner or boiler application. It uses "lead-sulphide flame-eyes."

Some of the features of the Wheelco Flame-otrol Model 1574: Motor-driven timing sequence; electronic circuit has three sensitivities, enabling it to pick up signals from different types of flames properly, and eliminating the need to try different lead-sulphide cells; sequencing includes purging, warm-up proving, low-fire stabilization, ignition timing, and post-purging; separate pilot-proving scanner can be used; Wheelco comprehensive delayed "safe-start circuit" provides a realistic "flame-off" proving period.

Extensive Exhibit

York Corporation, subsidiary of Borg-Warner, offers an impressive line of equipment for airconditioning, to state things mildly. At the Chicago show, York showed two new products.

First, new models of the York Snorkel room airconditioner, including a 7½ amp model, were announced. Intended to be an improvement over a windowsill airconditioner, the York Snorkel is boasted to be "thinnest of all inside," just 12¾" from front to back. It can be installed flush with wall, or partly recessed. Sizes now are ½, ¾, and 1 hp.

It blocks window-space little, takes only nine inches of the bottom of the window-space. Not projecting outside the window at all, it avoids violating restrictions of certain building laws—and of certain landlords. With the York Snorkel installed in a window, the window can be opened and closed completely, and locked when closed.

The second York Corporation attraction-getter at the Chicago show was the York Air-Source Heat-Pump for heating in winter and cooling in summer "using only outside air and incoming power lines." This system, York engineers said at the show, can obtain heat from subfreezing outside air, to provide winter heating for office buildings, department stores, supermarkets, and industrial buildings. The trick to this lies, York explained, in the use of multi-stage compression for its refrigeration system.

The York engineers at the heating and airconditioning show said, "Single-stage air-source heat-pumps fail to provide adequate heat in freezing weather and require the assistance of electrical resistance heaters. With multi-stage compression, sufficient heat can be extracted from the air under any climate conditions; without supplementary heaters, previously used to make up for deficiency in capacity."

Up to about five years ago, few manufacturers seemed interested in producing gun-type burners of medium to high capacity, able to use fueloils heavier than the domestic grades; only two makes of gun burners were widely known for their ability to use No. 5 oil.

That situation has changed in recent years. The trend now is towards the production of more and more makes of gun burners which can use No. 5 fueloil, or perhaps No. 4 oil. The show exhibits produced evidence of this trend.

New Petro burners at the show, which were not surprising to burner experts who know the histories and present company affiliations of burner manufacturers, were of the gun-type with electric ignition. They use No. 4 oil in models not equipped with electric oil heaters, and No. 5 oil in models having electric oil heaters. Two sizes are made to cover firing rates from 3 to 25 gph.

Primary Control Trend

In the field of primary controls for oilburners, a trend of recent years involves reduction of the "trial-for-ignition" period. This trend developed tremendous impetus in December 1955 because of the publication by UL of a new "Standards for Safety" covering oilburners and related equipment, especially primary controls. This is identified as "UL 296, Third Edition, December 1955."

The booth attendants in the Fireye control exhibits, at the Chicago show, were sparked by the new UL "Standards for Safety," and by the trend to shorter "trial-for-ignition" periods. Fireye controls are made, of course, by the Combustion Control Division, Electronics Corporation of America.

The Fireye oilburner control experts at the show hammered home these two pet points to all oilburner experts within hearing:

First, you cannot overestimate the

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a complete line of WATER SPRAYS
WAYNE
Oil Burners
KORTH SHELL HEAD
NEW . . . IMPROVED
Will get you out of the CHEAP, COMPETITIVE non-profit market. You get more PROFIT per Job.
GENERAL PRODUCTS CO. INC.
AIR-JET
L & GOSSETT COMPANY

value of a five-second "trial-for-ignition" period for a gun-type, electric-ignition burner. Such a burner has no gas pilot which you can monitor electronically. Whether the burner is of the high-pressure, medium-pressure, or low-pressure atomization type, its primary control should turn it off within five seconds after atomized oil first is sprayed into the firebox—if within the five seconds the flame does not start burning properly.

Second, Fireye finds nothing new in controls which provide five-second "trial-for-ignition" timing for gun-type burners having straight-electric (no gas) ignition systems. Type FJ-2 Fireye primary control provides such five-second start-up safety timing, and has been made since 1954; it uses a lead-sulphide cell to report instantly on the appearance of the oil flame in the combustion chamber, and thus acts well within five seconds when a burner starts up properly, and ignites promptly the oil sprayed from the atomizing nozzle.

Stress Electric Ignition

Enthusiastic about stressing at the present, highly appropriate time their ten-year-old concept of best control operation for gun burners having electric ignition, the Fireye men at Chicago had dozens of their control features to explain. Just two can be squeezed in here:

First, in the Fireye control that provides this five-second start-up timing, a synchronous electric clock does the timing. Thus the timing is not changed by extremely low or high ambient temperatures, is not affected by changes in line voltage, and cannot be made appreciably greater by tinkering with the control or bending its parts.

Second, final-inspection tolerance is plus zero seconds and minus two seconds, for this five-second timing. Thus on actual installations the lead-sulphide cells which monitor the oil flames are indicating "flame burning properly" within three to five seconds after atomized oil starts spraying.

Their five-second "trial-for-ignition" timing is excellent for all sizes of gun-type burners having straight-electric ignition systems, Fireye experts believe. But control-cost being a big factor, these experts point out, at present the Fireye controls providing such five-second start-up timing are being used mainly for burners of medium to high gph capacity—but if the oilheating industry advances rapidly, soon such electronic controls should be available to any homeowner willing to pay a suitable extra amount to have his domestic oilburner safeguarded by literally the best primary-control equipment that can be made.

Indoor-Outdoor Control

Detroit Controls Corp., Division of American-Standard, featured its new Weather Minder at the Chicago show, explaining this is the Indoor-Outdoor Thermistor Control System. "At a cost within the reach of the most modest budget," said the Detroit Controls engineers at the show, "any homeowner can have a room thermostat set-up that compensates automatically for outside temperatures."

Having two thermistors in its control unit which is located outdoors, this control set-up is unique in compensating two ways for decreases in outside temperatures:

First, the inside-temperature or room-temperature of the house automatically increases slightly as the outside temperature drops. This avoids occupants becoming chilly, especially when near windows and outside walls, as the weather turns colder and colder. Providing 70°F. indoors for outside temperature of 50°F., this new system provides about 72°F. indoors automatically when the outside temperature drops to 10°F.

Second, thanks to the new and unique idea of using the second thermistor in the control unit located outdoors, this Weather Minder system provides short oilburner "on" periods for mildly cold weather, and then insures extremely even, steady heating. But for colder weather when doing this does not affect comfort but does lead to higher efficiencies and to fuel savings, the system adjusts itself automatically for longer oilburner "on" periods.

Bell & Gossett Company's big display listed specifically the functions for which forced hot-water heating plants are installed, and featured the new Hydro-Flo Package Liquid Chiller.

This B & G liquid cooler can be used as a separate space-cooling unit, or in combination with a forced hot-water heating system. It is available in capacities of 7½ to 50 tons. Exceptionally clear diagrams, in technical literature on this liquid chiller, serve well for teaching oilheating equipment dealers how to install the piping and electrical controls for systems having room units; flow of hot water through these units heats the rooms in winter—in summer the rooms are cooled and dehumidified by the flow of chilled water through the same room units.

In the vast display area occupied by products and demonstration set-ups of Minneapolis-Honeywell, at the Chicago show, two new products were outstanding for the oilheating equipment dealer; each of the two will affect the performance of many oilburner installations.

3-Way Control

For forced hot-water heating systems, Honeywell featured its new L8024 control. Although for its size this seems impossible, the new L8024 includes three sensitive rapid-acting temperature controls, plus a circulator relay having a low-voltage pilot circuit for connection to a sensitive low-voltage room thermostat.

The three boiler-water temperature controls provide (1) Low-limit control of boiler temperature when only hot water, no radiator heat, is needed; (2) reverse-action control for the circulator motor, to keep the circulator idle when the boiler temperature is below par for ample hot water from faucets; and (3) High-limit control of boiler temperature, for times when maximum boiler temperatures are needed—for maximum radiator temperatures on coldest days. Fail-safe design is featured; leaking of liquid from a heat-sensitive element keeps the oilburner idle. Just to top things off, this new control has internal wiring and terminals which permit it to be installed easily in a system having more than one circulator, more than one zone.

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INCREASES PRODUCTION TIME OBTAINS NEW BUSINESS
FASTER DELIVERIES
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CED DRAFT FANS
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FAMOUS THE WORLD OVER FOR QUALITY
A TYPE AND SIZE FOR EVERY BOILER AND FURNACE
ONNELL
BOOTH No.10
OILER WATER FEEDERS
BOSTON MACHINE WORK
BOSMACO
METAL SPECIALTY CO.
DON'T BE IN THE DARK

The other important new product displayed by Minneapolis-Honeywell at Chicago was the R4074B electronic Protectorelay. This was specially engineered to meet the flame-supervision requirements of typical medium-sized commercial and industrial oilburners. Use of the M-H Flameguard (lead sulphide) photocell flame detector circuit permits this new electronic Protectorelay to supervise either a gas pilot or an oil flame. The gas pilot can be supervised separately during a burner start-up. Flexibility is featured in this new electronic Protectorelay, as in the other electronic Protectorelays which have been in production for some time —that is, the manufacturer or oilburner dealer arranging the job's details can take his choice of several forms of start-up oilburner performance, cycling in overall of the control, and pilot and main-flame supervision. Similarly, the new R4074B is easily adjusted for 60-cycle current of 120, 208, or 240 volts.

Summer-Winter Units

New models of summer-winter conditioning units for small homes were exhibited at Chicago by many manufacturers—by too many to list here. Stewart-Warner Corp., for example, announced new "Modern Builder" year-'round "simplified airconditioning systems."

If these are located centrally in small houses, they need little or no duct work. Clearances are zero for sides, rear, and top—and 6″ in front. Counterflow, and vertical up-flow models are available. The oilfired furnames have 64,000 Btu output, whereas cooling comes in either 2 hp or 3 hp capacity. If not provided at first, summer cooling equipment can be installed easily and quickly later. The condenser is remote, can be installed on the ground close to the house and hidden by shrubbery, or suspended from carport rafters. For the furnace, blower, etc. package-unit within the house, floor-area requirements are an exceptionally small 22″ x 27″.

White-Rodgers announced an advance showing, at the Chicago show, of its "Fashion-styled push-button heating-cooling Thermostat."

The success of push-buttons is seen everywhere, White-Rodgers points out, in homes, radios, TV's, automobiles, and electric ranges. Thus White-Rodgers now gives oilheating and air-conditioning equipment dealers the great selling power of push-buttons.

Sub-Bases Varied

Eight types of thermostat sub-bases are available, with from two to five push-buttons each; two sub-bases having the same number of push-buttons can be wired differently. This equipment can, then, be installed in widely different ways to match the requirements of the designer of the particular cooling, or heating-cooling system.

The White-Rodgers room thermostat, which goes with the push-button base, is described as being of the proper shape . . . has no sharp corners or severe curves or circles to clash with room or furnishings. It is described as being the right color, Adobe-beige, which harmonizes with any color scheme. Yet it "can be painted to disappear" by giving it the color of the wall. A neat hinged cover for the thermostat is intended to remove the "mechanical look" and discourage unnecessary changes in the setting of the thermostat.

American-Standard's exhibition at Chicago included such a bewildering variety of equipment that selecting one striking or representative new product was difficult. American-Standard exhibit attendants, however, helped by indicating one of their favorite new products is the Model ACP self-contained air-cooled airconditioner.

The Model ACP is a self-contained air-cooled unit for installation in a basement, utility room, garage, crawl space, attic, wall, breezeway, or outdoors—meaning plainly you can place it anywhere just as long as outside air can pass through it to cool it. It is suitable for use with an existing heating system of the duct type, and turns the system into an automatic year-'round airconditioning system. But special preformed aluminum-clad fiber-glass ductwork is available for installing the Model ACP independent of the heating system.

A twin-compressor cooling system permits continuous blower operation with one compressor running continuously while the other is turned on and off by a room thermostat. High capacity is featured in two sizes. Size 20 has two one-horsepower compressor motors; size 35 has two compressor motors, each of one and three-quarter horsepower size. Compactness is featured; the higher capacity unit is only 24½″ high, 36¼″ wide, and 47-3/16″ long.

Stewart-Warner Corp. announced at the show its new WIZ line of forced-air furnaces carrying the Winkler nameplate, which is designed specially for development builders and includes .75 gph basement models, counterflow models, vertical-upflow models, and horizontal models. All are adaptable for summer cooling, using new WIZ air-cooled condensing units described as amazingly simplified.

Spi-Rol-Fin Corp. is the company described at the start of this show write-up as boasting its new equipment "smashes the price barrier for zone control." Because newly announced Spi-Rol-Fin motorized valves are used in a zoned-heat system of this new low-priced pattern, only one standard circulating pump is used in a domestic heating system. That's the trick, according to this company's executives, of cutting greatly the cost of zone control.

Although it is but a sampling job, this report on the Chicago heating and airconditioning show demonstrates that the new products displayed proved trends exist towards increased use of electronic primary controls for oilburners, especially burners above domestic sizes, with the lead-sulphide cell becoming the standard flame-monitoring device for the entire industry.

Other Trends

Other trends brought out by the show: increased use of highly developed heat-control systems for homes, including the use of special room thermostat set-ups, and zone controls . . . greatly increased use of domestic air-conditioning equipment which provides summer cooling . . . increased use of packaged oil-boilers for large installations . . . and the production of additional makes and models of gun-type oilburners for residual fueloils.

Electric Heat invades the sacred Precincts

THE INTERNATIONAL Heating and Air Conditioning Exposition, held in Chicago's vast International Amphitheatre, February 25 to March 1, included a record number of varied exhibits. Chief among the ones that interested heating personnel are those shown on this page.

They are unique in that they represent a considerable "invasion" of basic electric heating equipment in a Show that heretofore had been confined largely to combustion fuels. None of this equipment necessarily was displayed for the first time; rather the montage conveys some of the impact made by these exhibits. There are views of three heat pumps that were displayed. Then there's the complete line of Chromalox equipment, highlighted by a new electric heating unit for schools, featuring fan-controlled air circulation.

1956 Installations were 709,192

BASED ON OUR final estimates for the year we find that 709,192 installations of domestic oilburners and units were made in 1956. This is two-thirds of one per cent below our preliminary estimate of 713,947 as published in the January issue.

This is also a little below the ten year post-war average of 723,000. It is not a particularly significant decline, however, because in the ten post-war years we have ranged from a low point of 455,000 to a peak of 888,000.

The final estimate of the year was made on this basis

Factory shipments		748,349
Less exports of		42,000
Net domestic shipments		706,349
Dealer stock adjustment:		
Jan. 1, 1957	94,802	
Jan. 1, 1956	97,645	
Stocks were down		2,843
Indicated installations		709,192

The brightest spot in the year's experience was the pick-up, 18.7%, in sales of replacement equipment. The other two principal categories, new homes and conversions from other fuels showed significant decline.

Replacements were the bright spot

	INSTALLATIONS	
	1955	*1956*
New Homes	376,199	304,243
Replacements	119,983	141,838
Conversions	313,123	263,111

Obviously, the growth in replacement sales was of only indirect benefit to the oil companies. It did retain more existing accounts. The net gain in number of oil users was 447,217 or 5.8%. This gain was made up of new home sales plus conversions from other fuels and then we deducted the losses to other fuels which were a little over 90,000.

The Midwest and South Atlantic regions gained ground in their share of the national market at the expense of New England and Mid-Atlantic states.

The year's actual sales showed stronger swings than the preceding table of installations operating. New installations in the Midwest were 36% of the national total, in the South Atlantic they were 8%. In the New England and Mid-Atlantic areas the new installations were approximately 15% and 31% respectively of the total.

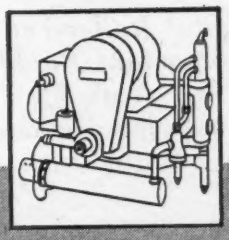
It is particularly interesting that we make our strongest gains in the Midwest where competing fuels are generally cheaper than oil. Then we make slower headway in the New England and Mid-Atlantic states where we have higher saturation, but usually the cheaper fuel.

Midwest continues to pick up

	PERCENT OF TOTAL IN USE		
	1/1/55	*1/1/56*	*1/1/57*
New England	16.9	16.9	16.6
Mid-Atlantic	40.3	39.8	39.5
South Atlantic	5.6	5.7	5.9
Midwest	26.9	27.4	27.8
South Central	1.3	1.3	1.3
Mountain	1.2	1.2	1.2
Pacific	7.8	7.7	7.7
	100.0	100.0	100.0

Distillate oilburner Installations by States, 1956

	Burners In Use 1/1/56	*New Homes*	*Replacements*	*Conversions*	*Total*	*Lost to Other Fuels*	*Burners In Use 1/1/57*
Maine	98,550	4,017	2,802	2,522	9,341	493	104,596
New Hampshire	96,391	3,114	2,173	1,955	7,242	383	101,077
Vermont	27,629	785	755	979	2,519	133	29,260
Massachusetts	726,162	22,747	15,870	14,283	52,900	2,795	760,397
Rhode Island	102,771	3,927	2,740	2,465	9,132	482	108,681
Connecticut	328,630	10,245	7,148	6,433	23,826	1,258	344,050
NEW ENGLAND	1,380,133	44,835	31,488	28,637	104,960	5,544	1,448,061
New York	1,401,956	48,446	15,334	21,408	85,188	7,248	1,464,562
New Jersey	742,370	26,519	9,360	16,119	51,998	4,424	780,584
Pennsylvania	709,507	30,130	10,633	23,315	64,078	5,026	757,926
Delaware	56,373	2,257	797	1,371	4,425	377	59,624
Maryland	294,364	3,011	2,828	4,871	10,710	1,337	300,909
Dist. of Columbia	81,268	2,483	876	1,509	4,868	414	84,846
MID-ATLANTIC	3,285,838	112,846	39,828	68,593	221,267	18,826	3,448,451
Virginia	177,954	8,309	3,061	10,496	21,866	1,833	194,926
West Virginia	4,096	398	147	502	1,047	88	4,908
North Carolina	180,151	6,646	2,817	10,659	20,122	1,687	195,769
South Carolina	32,753	2,320	855	2,931	6,106	512	37,492
Georgia	19,969	1,062	391	1,338	2,791	234	22,135
Florida	59,225	3,364	871	1,987	6,222	523	64,053
SOUTH ATLANTIC	474,148	22,099	8,142	27,913	58,154	4,877	519,283
Michigan	430,565	14,009	8,134	23,047	45,190	9,571	458,050
Ohio	196,351	7,519	4,366	12,370	24,255	5,137	211,103
Indiana	173,071	7,835	4,550	12,890	25,275	5,355	188,441
Illinois	453,300	16,859	9,789	27,735	54,383	11,518	486,376
Wisconsin	296,708	10,367	6,020	17,059	33,446	7,084	317,050
Minnesota	285,393	8,706	5,055	14,323	28,084	5,948	302,474
Iowa	150,349	4,591	2,665	7,552	14,808	3,136	159,356
Missouri	123,857	4,195	2,436	6,900	13,531	2,866	132,086
Kansas	15,295	712	414	1,171	2,297	487	16,691
Nebraska	65,892	1,583	919	2,604	5,106	1,082	68,997
South Dakota	36,125	1,345	781	2,214	4,340	919	38,765
North Dakota	39,959	1,425	827	2,344	4,596	973	42,755
MIDWEST	2,266,865	79,146	45,956	130,209	255,311	54,076	2,422,144
Kentucky	16,428	1,008	473	612	2,093	203	17,845
Tennessee	20,153	1,484	696	900	3,080	299	22,238
Alabama	11,398	375	177	224	776	75	11,922
Mississippi	2,321	124	58	76	258	25	2,496
Arkansas	3,450	147	69	88	304	30	3,655
Louisiana	13,495	371	173	228	772	75	14,019
Oklahoma	3,564	196	93	117	406	39	3,838
Texas	38,064	737	346	447	1,530	149	39,099
SOUTH CENTRAL	108,873	4,442	2,085	2,692	9,219	895	115,112
Montana	10,688	556	318	45	919	113	11,176
Idaho	22,063	1,516	867	119	2,502	310	23,388
Wyoming	5,324	247	142	19	408	51	5,539
Colorado	14,959	628	360	50	1,038	129	15,508
Utah	16,731	1,267	725	99	2,091	258	17,839
Nevada	14,228	479	274	38	791	98	14,647
New Mexico	3,283	134	76	11	221	27	3,401
Arizona	15,578	326	187	27	540	68	15,863
MOUNTAIN STATES	102,854	5,153	2,949	408	8,510	1,054	107,361
Washington	259,304	18,790	5,991	2,451	27,232	2,558	277,987
Oregon	152,285	10,181	3,246	1,328	14,755	1,387	162,407
California	224,928	6,751	2,153	880	9,784	920	231,639
PACIFIC STATES	636,517	35,722	11,390	4,659	51,771	4,865	672,033
UNITED STATES	8,255,228	304,243	141,838	263,111	709,192	90,137	8,732,445



COMMERCIAL & INDUSTRIAL oilburning

SECTION

fueloil & oil heat

NEW YORK

COMMERCIAL & INDUSTRIAL oilburning

Modern Oilheating for Hospitals

Selection of the proper Fuel for a hospital Boiler-room depends on fuel Costs—and on other important Factors

by
J. W. Schulz

HOSPITAL FUEL BILLS can run high or low on a per-bed basis. Certain hospitals run up boiler-plant fuel bills shockingly excessive, whereas others enjoy boiler-plant fuel bills unbelievably low.

This situation is not new. In 1940 the author handled a project related to heating hospitals economically. At that time, according to a published report summarizing the results of the project, the yearly fuel cost per-bed of northeastern hospitals was reported as low as $12 and as high as $125.

Since 1940, fuel costs have increased greatly, just as all other costs have. Now as then, however, the per-bed cost of heating certain hospitals is many times greater than that of other hospitals. Now as then, the many variables involved prevent stating how high a hospital's fuel bills should be on a per-bed basis or any other basis.

Yet successful efforts can be made to minimize the fuel bills of a new hospital being planned, and to reduce the fuel bills of almost any existing hospital.

Unbelievably low hospital fuel bills are not the result of accidents—they are the results of proper planning and highly effective executive action.

Arriving at lowest sum-total costs of heating a hospital includes the wise consideration of many factors related to the fuels which are available locally.

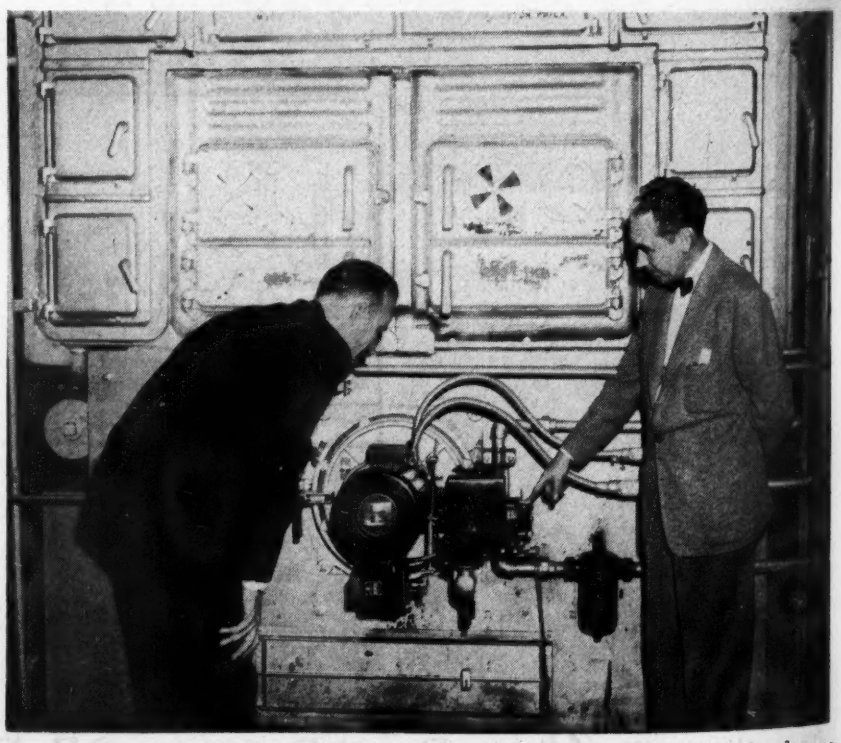
Many of these factors are difficult or impossible to evaluate in dollars and cents, but one of the important factors can be so evaluated. That's the matter of pinpointing the amount of heat purchased per dollar spent on each of the available fuels. Each fuel provides a certain number of Btu's per dollar spent on it. A Btu is a heat unit; it represents the amount of heat needed to raise the temperature of one pound of water by one degree Fahrenheit.

The fuel that costs the least provides most Btu's per dollar spent on fuel. As a fundamental first step that includes only a few steps of simple arithmetic, the Btu-per-dollar factor of each of the different fuels being considered by a hospital should be computed—by any architect, engineer, or hospital executive who is comparing the fuels. How many Btu's are obtainable per dollar should be figured, for it pinpoints available fuels of bargain values.

The amount of heat in one dollar's worth of fuel is one thing, and the amount of this heat obtainable from the fuel is another. That's because of the different efficiencies at which fuels are used.

Certain fuels are not burned easily at high efficiencies—in actual practice, are invariably burned at low efficiencies because of their inherent nature.

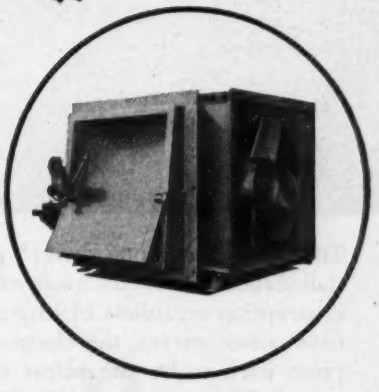
The extreme of low efficiencies was found in a certain hospital employing probably the most poorly paid men in the city—to handfire its boilers with low-grade, inexpensive coal. Whereas the firemen did not have the slightest knowledge of combustion, coal, or the boiler-room equipment they tended, combustion engineers found difficulty in hand-firing the particular coal at fair efficiencies and without producing vast amounts of smoke, soot, and fly-ash from the hospital's stack. Coupled to the extremely poor firing of the coal in this hospital was extremely poor control of the heat. The amount of coal fired each day governed the amount of heat given off by the steam radiators in the hospital. The firemen



Low-pressure *cast-iron boilers fired by inexpensive residual fueloil, like the one in this photograph, are used to heat many small and medium-size hospitals—hospitals located in towns and small cities, and neighborhood hospitals in large cities. The burner in the photograph uses low-priced No. 6 fueloil.*

ELIMINATE

• rusting •
• maintenance •
• worry of wind or storm •
poor combustion from variable draft
• unsightliness •



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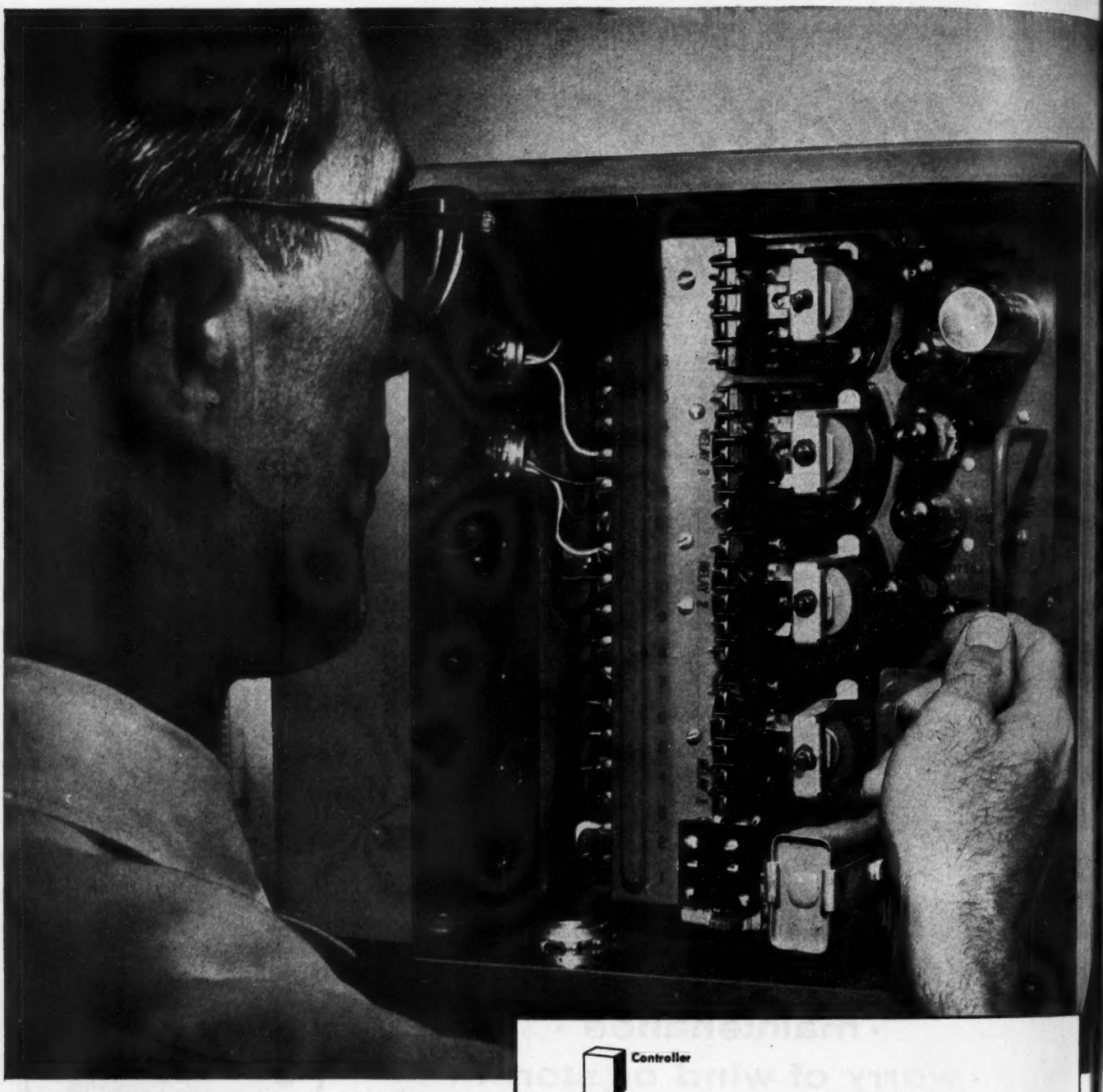
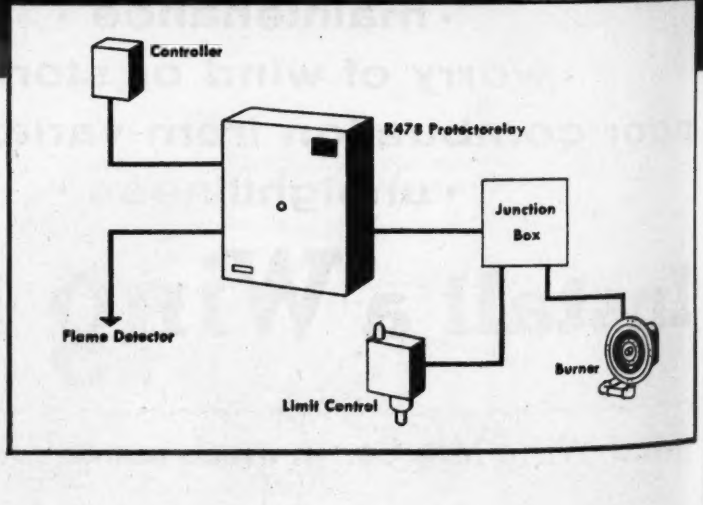


The new R478 Protectorelay* you see being installed above assures you a safe start after each power interruption regardless of length or cause. Every time power returns, the electronic network must prove itself to be safe before the burner can be started. With power on during stand-by the electronic circuit checks itself continuously. The R478 responds instantly to flame failure, providing immediate burner shutdown and post purge.



A flame safeguard for commercial burners

New Honeywell R478 Protectorelay*

gives your customers the ultimate in

Safety • Performance • Flexibility

• **Choice of flame detection**—R478A for flame rectification (flame sensing rod and photo cell). R478B for Flameguard (lead sulphide cell).

• **Choice of burner sequencing**—choose from:

- Pre-purge period either 5 or 30 seconds.
- Proved or unproved pilot or direct ignition.
- Intermittent or interrupted pilot.
- Ignition timing either 15 or 60 seconds.
- Low fire start with return to firing rate control either when main fuel valve opens or at end of ignition period.

In combination gas-oil burners one sequence can be selected for gas firing, another for oil firing.

• **Choice of manual or automatic starting.**

• **Wide selection of voltage**—voltage selector permits use on 120, 208 or 240-volt 60 cycle service. Separate model available for 50 cycle.

• **Broad range of applications**—precision engineered for large conversion burners—such as horizontal rotary, mechanical, air or steam atomizing and forced draft gas—also for steam generators and floor standing heaters.

• **Fast dependable electronic detection and timing**—R478 responds *instantly* to flame failure. Then, vacuum-tube rectifiers assure uniform electronic timing of sequences.

• **Easy to install.**

• **Lower maintenance costs**—Time-proven Honeywell components—unaffected by friction, dust or corrosion—assure constant efficient operation.

Honeywell manufactures a complete line of heating controls for all types of oil and gas burners. With Honeywell you can rely on one supplier for all of your controls. For information on the R478 or on any of our other controls, call your local Minneapolis-Honeywell office. Or, write Dept. FH-4-140, Minneapolis 8, Minn.

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FOR 20 TO 150 H.P. BOILERS HIGH STACK NOT REQUIRED

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MANUFACTURERS OF OIL AND GAS AND OIL/GAS BURNERS
SYNCHRONOUS FLAME, INC.
WALWORTH • WISCONSIN

fired amounts of coal regulated by neither outdoor nor indoor thermometers. They were the lowest grade laborers obtainable. Also coupled to this were grates in bad condition, which caused the ash cans to contain more unburned coal than ashes.

Poorest conceivable combustion, firing methods, grates, and control of heat within the building—all led to the conclusion that the coal was being used at 30% to 35% efficiency.

At this extreme of low efficiency, the coal as such was being purchased wisely on the basis of the Btu's contained in it for each dollar spent on it. But because of the 30% to 35% efficiency, only one-third of the purchased Btu's (in the coal) were reaching the radiators.

The extreme of high efficiencies, on the other hand, is gained in many hospitals having modern oilfired boilers. This extreme of maximum efficiencies fortunately is not difficult to attain today, thanks to the availability of many makes of oilburners capable of highly efficient operation, and to the availability of other boiler-room and heating-system equipment geared to work with the oilburners at high efficiencies. Highly efficient boilers, for example, are easily obtainable today

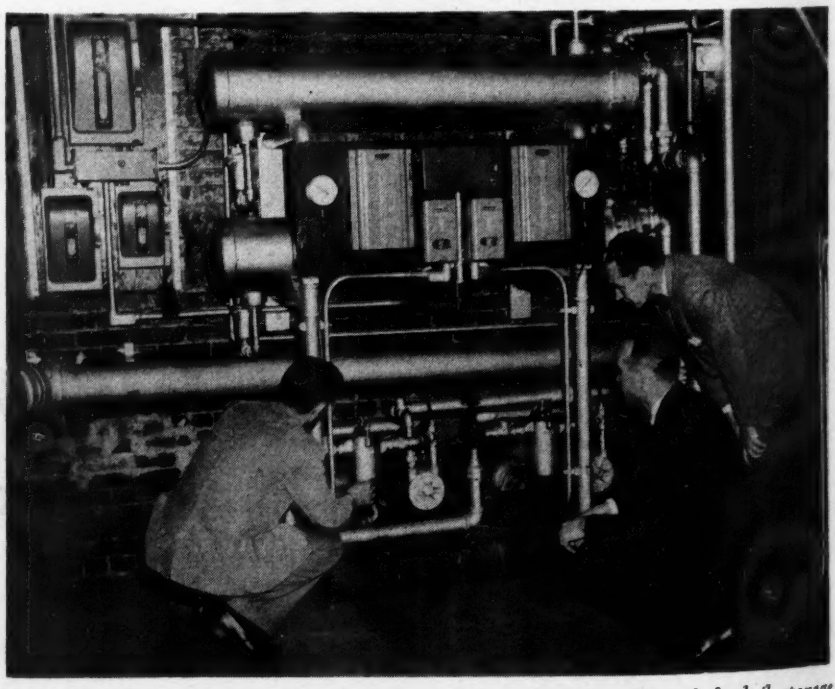
COMMERCIAL & INDUSTRIAL oilburning

to complement the inherently high efficiencies of modern oilburners.

Several types of heat control systems are used with modern oilburners to insure proper heating of hospital rooms; on the one hand, these control systems avoid room overheating and resultant waste of the fuel accompanied by fuel bills needlessly excessive. On the other hand, these heat-control systems insure adequate heat in rooms together with as much health and comfort for the occupants as modern heating can provide.

Certain of these highly efficient oil-fired hospital boiler-plants use the heaviest, residual fueloils which cost least per gallon—usually the largest plants. Other hospital boiler-plants use lighter grades of commercial-industrial fueloils. Still others use domestic fueloils. The different grades of fueloil are used for different reasons.

Using any type of fueloil, however, a hospital can enjoy the extreme of high efficiencies. From 70% to 80%



Here are *the pump-sets that bring in oil from outside, buried fueloil storage tanks—for oilburners firing several boilers. The long, horizontal tank-like units above the pumps are fueloil heaters, used here because this installation handles heavy and inexpensive No. 6 fueloil which needs heating to permit it to be pumped and burned properly.*

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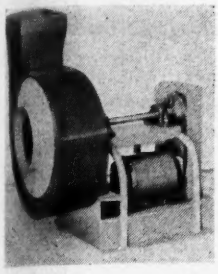

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- a fueloil containing more heat units per gallon.
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to properly prepare heavy oil for combustion

use

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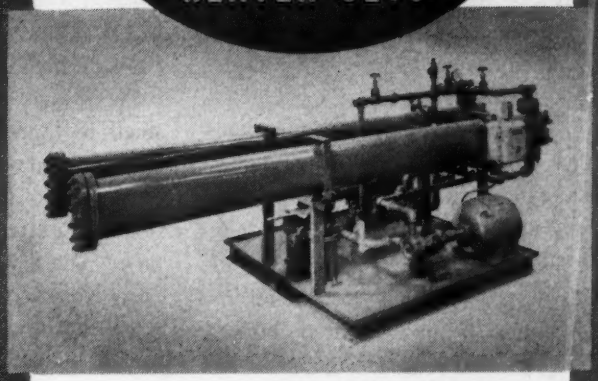
"pre-packaged" FUEL OIL PUMP and HEATER SETS



Use the most efficient and up-to-date means for the proper preparation of heavy oil for combustion—an EAGAN "pre-packaged" fuel oil pump and heater set. These are the benefits you'll get:

- *speedy installation* since an EAGAN unit is delivered ready to operate. Only connections to oil and steam supply, burner, bypass and relief valve are required.
- *elimination of combustion difficulties* caused by improper field assembled combinations.
- *reserve capacity.* EAGAN units exceed minimum requirements of the burner with an adequate safety factor to provide for eventual wear and future demand increases.
- *easy maintenance* since all parts are located for easy access.
- *long life* because of special engineering, sturdy construction.

EAGAN fuel oil pump and heater sets heat to 300°F, pump to 400 psi and have capacities to 3000 gph. Single or duplex units are available for steam or electric drive. Duplex "electro-steam" sets provide for electrical failure by incorporating one steam pump and one electric motor driven pump. Other EAGAN fuel oil pump and heater sets can be made to your special requirements.

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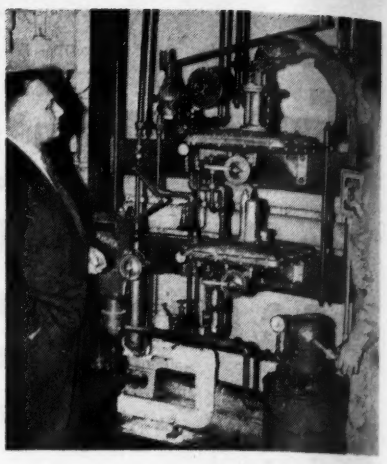


Part *of a highly developed control set-up which automatically adjusts the rate at which large, hospital boilers are fired by inexpensive, residual fuel-oil. When the steam pressure drops a hair below par, the automatic controls increase the size of the oil flame—any increase in the firing rate of the boiler is accompanied instantly by precisely the proper increase in the rate of air flow to the fire. Controls experts find easy the assignment of specifying exactly the proper controls for an oil-fired boiler; controls are widely used because they eliminate manual adjustments and insure high efficiencies.*

of the heat in the fuel can appear as useful heat from the radiators of one of these modern, oilfired hospital heating systems.

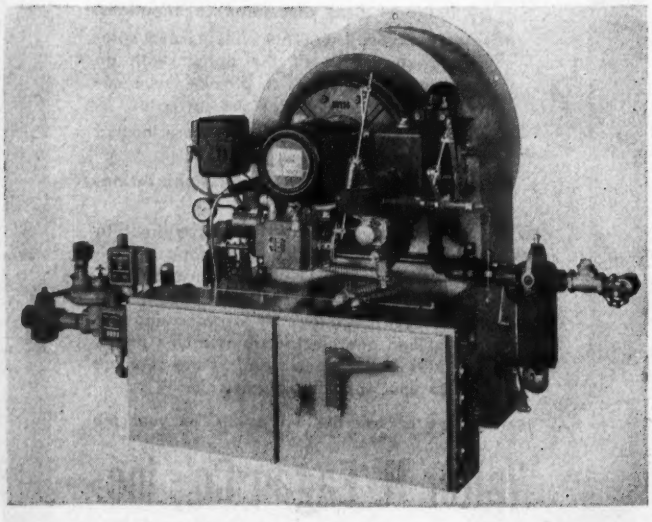
The oilheating industry has facilities, established to assist hospitals and other fueloil users, for insuring the utilization of the fueloil at maximum practical efficiencies. In certain small to medium size hospitals and institutions, fully automatic oilburner equipment operates in boiler rooms which are locked, or which may as well be locked—for all attention for the boiler-room equipment is provided, not by hospital employees, but by servicemen employed by local oilburner equipment dealers, or by fueloil suppliers. These commercial-industrial boiler rooms may be checked thoroughly by the outside experts once or twice a year, and inspected every one or two months.

In other hospital oilfired boiler-plants, of medium to large size, the small amount of attention needed for the boiler-room equipment is provided daily by hospital employees. In many extremely large hospital boiler-rooms having two to six low-pressure steam boilers, and perhaps one relatively small high-pressure boiler to serve a laundry and a kitchen, the automatic oilburner equipment needs but about one hour's attention each day from one man. The man's other working hours are given to maintenance and other work that must be done.

The items covered so far can be figured in dollars and cents. They include, first, purchase of fueloil having many Btu's per dollar spent on the oil; second, use of the fueloil at maximum efficiencies of up to 70% to 80%; third, the low expense of having the oilburners maintained and serviced by outside experts, or by a hospital employee who gives them a few hours attention each week.

Also susceptible to figuring in dollars and cents are the items of (1) repair parts needed yearly for oilburner, (2) replacement of oilburners, or parts, and of automatic control sys-

JOHNSON FORCED DRAFT PACKAGE-UNIT BURNERS



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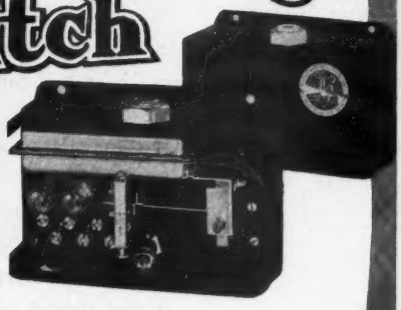
- ADJUSTABLE CUT-OFF POINT



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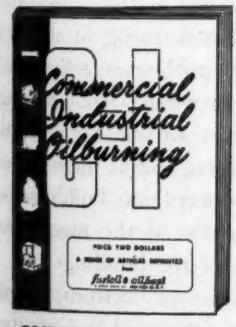

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tems after use extending over a suitable number of years, and (3) electricity needed monthly for the hospital's oilburning system.

The fuel-storage aspects of an oilburner installation can be evaluated in dollars and cents in certain instances, at least to a degree. For example, in converting from coal to oil, a certain hospital gained space worth several hundreds of dollars per month—for it converted its large coal bins to badly needed laboratories and offices. A new hospital saved thousands it had planned to put into building coal bins —when it decided to use fueloil instead and did not build the coal bins. The decision to install small, packaged oil-boilers instead of large, conventional coal-designed boilers, saved a third hospital half the cost of the boiler-room it first planned to erect.

But other fuel-storage aspects of an oilburner installation, though of vast value, cannot be evaluated in dollars and cents. First, there's the security gained over a piped-in fuel of having on hand a minimum, say, of two-week's supply of fuel at all times to guard against the emergency of a breakdown in the availability of fuel. Add to that a standby plant for providing an emergency amount of electricity for times of current failure (enough to keep a minimum of lights on, operating room current, and boiler-room electricity) and you gain security against outside breakdowns of vast value, but impossible to write down in dollars and cents.

Second, there's the safety in the stored fueloil, which has great value, and which applies to fueloil tanks buried outdoors or located in basement vaults of required, safe design.

The safety Angle

Third, the use of fueloil gives safety of great but intangible value with respect to possible leaks—to the fuel's escaping from pipes which should contain it, and finding its way to building locations which should be free of it. Liquid-fuel systems can be exceedingly safe—modern liquid-fuel systems are designed to be 100% free of hazards. The escape of liquid fuel from a small leak gives warning, for even a pint or quart of fueloil in a pool gives off a warning signal by way of odor.

Gaseous fuels deserve great respect, especially those widely used fuels which give no warning in the form of odors when pipes start leaking within buildings, or when outside pipes develop leaks in cold weather when the ground is frozen, and as the result explosive gases seep into buildings following the paths of the pipes which provide gas for the buildings.

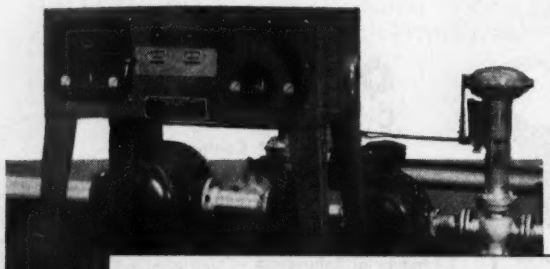
Years ago, before electronic controls were used to safeguard the operation of commercial-industrial oilburners, oilburner experts obtained humor from the most violent behavior of which their burners were capable—saying an ill-tempered old oilburner had "puffed", or "sneezed", or "snorted". Years ago, the door of a boiler sometimes blew open because of "delayed ignition", or in an instance of great violence, a smokepipe or smoke-breeching was tossed off a boiler.

NO SEPARATION POSSIBLE!!

Tests prove that oils blended with Proportioneers TC Blender *do not separate.* A user of Proportioneers TC Blender, Vice President H. E. Davenport of Pocahontas Fuel Company Incorporated, Salem, Mass. writes:

"We have found that there is NO SEPARATION even after six months standing. The Proportioneers in-line blender produces the #5 oil our customers want, and it's absolutely uniform gallon-after-gallon."

Here is another example of expanded operational scope *without additional tankage.* Stock only #2 and #6 and deliver any intermediate grade of oil directly to your tank trucks. Savings up to ½¢ per gallon • extremely accurate • high repeatability • available immediately • simple to install • easy to operate (by present personnel) • 36 installations now in service.



Install a Proportioneers TC Blender now to put more profit into next year's heating season. Ask our sales engineers to provide you with complete data. Write Proportioneers, Inc., 543 Harris Ave., Providence, R. I.

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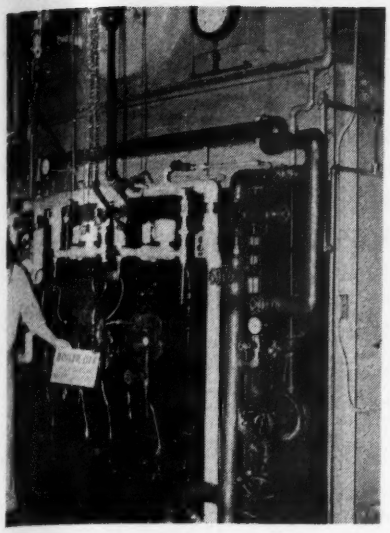

Large hospitals *and institutions use set-ups of this type for their medium-pressure and high-pressure steam boilers. While low-pressure steam can provide heat and hot water for any size hospital, steam at medium or high pressure is best for the launderies, kitchens, and operating rooms of large hospitals.*

Although the most violent misbehavior of these old oilburners never was of a nature and force to make men turn pale, today it is a thing of the past—thanks to the development of modern, electronic oilburner controls. On a modern commercial-industrial oilburner installation, these modern controls do two things, highly important but possible only in recent years: (1) They make certain the oilburner's ignition system is working in a dependable and strong fashion, before they permit atomized fueloil to be sprayed into the boiler's combustion chamber; (2) If the oil flame wavers or tends to die out with the burner firing normally, these modern controls cut off the flow of oil to the combustion chamber within four seconds.

Within about the past ten years, then, electronic controls have been developed for oilburners—used widely now, in fact required for commercial-industrial installations by the Underwriters' Laboratories decree, these electronic controls give evidence of the emphasis placed on safety by the oil-heating industry. Oilburner men prevent today the lower-power "puffs," "sneezes", and "snorts" of big oilburners, which years ago were a source of humor for them.

All this contrasts greatly to situa-

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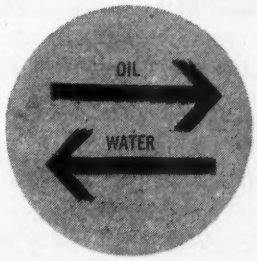
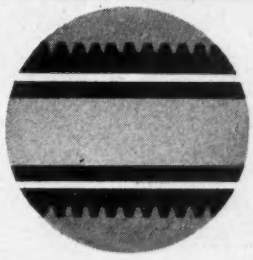
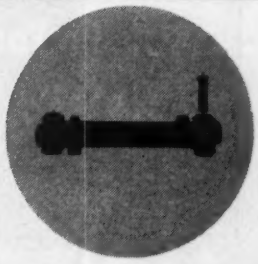


100% true counter-flow—Straight tube construction delivers full rated capacity at high oil exit temperatures.

Safety-barrier—Heat transfer liquid between tubes eliminates all need for electric warning systems.



Extended tube surface—Greatly increases heat transfer capacity.



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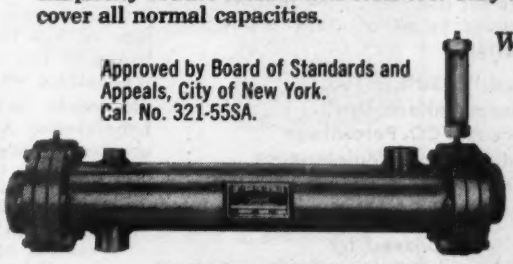
More capacity per dollar. The combination of straight tube design, extended tube surface, and special built-in features, gives you greater GPH in the Paracoil Thermo-film Heater in a given temperature range than any other comparable fuel oil heater. And its small size, lightweight and simplicity reduce installation costs too. Only five sizes required to cover all normal capacities.

Write today for Bulletin 60N

Approved by Board of Standards and Appeals, City of New York. Cal. No. 321-55SA.



Davis Makes it! BETTER

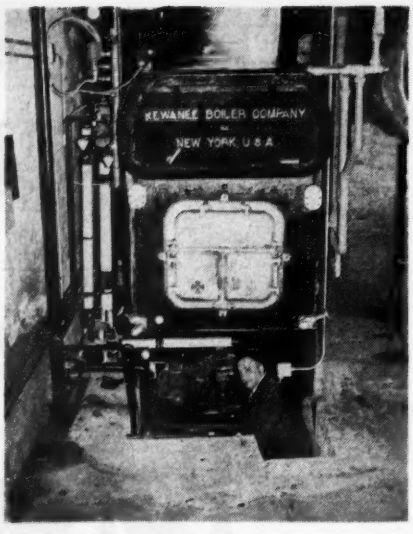
DAVIS ENGINEERING CORPORATION
30 Rockefeller Plaza, New York 20, New York
1064 East Grand Street • Elizabeth 4, New Jersey

*Trademark/Patent Pending

tions involving gaseous fuels which, in cases involving ignition of accumulated gas-air mixtures the result of small pipe leaks, do not give laughs related to small "puffs", "snorts", or "sneezes".

One practical serviceman, who works on gas-heating and oilburner equipment, words it this way, "In the old days, a mischievous big oilburner sometimes fooled around; while I was in the boiler room, it let out a bang as if a big paper bag full of air had been bursted. For oilburners, things have changed; they no longer fool around like that, because electronic controls have tamed them entirely. For gas firing equipment, things have not changed. The results of gas leaking from pipes, and then being touched off, never could be figured as just fooling around—and today a situation which includes a gas-filled room or building still demands as much respect as it ever did."

Fueloil dripping from a pipe does not result in fear in a serviceman's heart. As a liquid, fueloil is not ready



Relatively *simple steam boilers of this type, fired 30 to 50 gph, provide heat and hot water for many small hospitals and institutions. Horizontal rotary cup oilburners like the one in this photograph often are used; No. 5 or No. 6 oil is the favorite for these burners.*

to blast off, or even to burn. Fueloil must be atomized well, to prepare it for combustion even in a red-hot combustion chamber. The heavy commercial-industrial grades of fueloil have

COMMERCIAL & INDUSTRIAL oilburning

to be heated, to prepare them for flowing through large pipes, to permit even slow-speed pumps (designed for liquids as thick as molasses) to handle them, and as the first step of atomizing them.

There's tremendous value for a hospital or institution in the inherent safety of fueloil as a boiler-room fuel, but this value can't be figured in dollars and cents to any greater degree than the value of a human life can be figured in dollars and cents. The value of hospital safety is being gaged, in efforts to evaluate the great safety inherent in the use of fueloil as the fuel for the boiler room.

There will be further discussion next month of the many benefits obtainable from oilheating used in hospitals, with more pictures to illustrate typical installations.

You make money by saving customers money!

with a PREFERRED Barometric DRAFT-A-JUSTOR

100% Statically Balanced, Readily and Easily Installed —

1. On top of breeching
2. On side of breeching
3. Under breeching
4. At base of chimney

It pays for itself in a few months and gives years of clear profit thereafter.

- Saves 10-30% in Fuel
- Insures Uniform Draft
- Increases CO_2 Percentage
- Reduces Boiler Maintenance
- Ventilates Boiler Room
- Available in All Sizes.

Approved by Underwriters' Laboratories, Inc.

PREFERRED UTILITIES MFG. CORP.
1860 BROADWAY Dept. OH-1 NEW YORK 23, N. Y.

SAFETY SWITCH THAT SHUTS OFF FUEL IF BLOWER FAILS

Protection for Oil Burners • Industrial Ovens • Power Gas Burners

WHAT IT DOES

The Dewey Safety Air-Flow Switch protects against opening of fuel valve until fan is up to speed.

Insures purging of furnace before fuel valve opens. Closes fuel valve if fan slows up or stops. Flashes danger signal if fan or fuel stops. Safeguards against danger from gas fuel failure when used with safety shut-off valve.

Thousands sold. Factory Mutual and Underwriters Laboratories Approved. Standard equipment on leading products. Write for prices and literature.

DEWEY GAS FURNACE CO.
100 E. Baltimore Detroit 2, Mich.
Canadian Distributor: Ontar Laboratory, Ltd.
12 Leswyn Road, Toronto 10, Ont.

FREE CIRCULAR

Dewey SAFETY AIRFLOW SWITCH

Soot-free Operation of Burners using No. 6 Oils

SOLIDS COMING from the chimney tops of jobs using No. 6 fueloil seem to be a new problem . . . at least for several dealers and servicemen who have written FUELOIL & OIL HEAT about the matter.

That problem is discussed in an expert manner in the following letter from combustion-expert George G. Nash, of L. J. Wing Mfg. Co., Inc., Linden, N. J.

Here's his letter:

"In regard to the 'Readers Problem' starting on p. 97 of your April 1956 issue, we have an additional probability to add to your very comprehensive analysis of the problem of soot-free operation with No. 6 oil.

"The clue lies in the next to the last paragraph of the letter from inquirer 'G. S. P.' We are of the opinion that the accumulation is ash. The ash content of Bunker C or No. 6 fueloil can be anything from .09% up to 1.1% depending on the source of the fueloil and the method of refining.

"They are burning 14,000 gallons or about 114,000 lbs. of oil per week. The higher ash content could result in as much as 1254 lbs. of ash per week—the lower ash content corresponds to as little as 102.6 lbs. of ash per week.

"It is hard to estimate just what percentage of ash they have in the fueloil they are burning since, while they are collecting a 55-gallon drumful per week, a goodly portion also is being carried up the chimney to become a neighborhood nuisance.

"The reader who presented the problem is to be congratulated on an excellently engineered installation with extremely good performance. The high combustion efficiencies and ability to operate with low excess air are made possible through the use of the separate forced-draft blower which assures more intimate mixing of the combustion-air with the atomized fueloil—and better flame turbulence.

"We feel confident that his problem will disappear, if he obtains the analysis of the fueloil he is burning and insists on getting fueloil with minimum ash content."

HAVE YOU SEEN THE NEW TODD SERIES "B" ROTARY BURNER LINE?

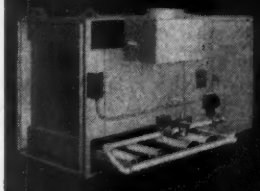
DEPT. 4, PRODUCTS DIVISION

TODD SHIPYARDS CORPORATION

Columbia and Halleck Streets, Brooklyn 31, N. Y.

NEW!

JACKSON & CHURCH



GAS SUSPENDED SERIES

DIRECT FIRED SERIES

J-C

WARM AIR FURNACES

May we serve you with your furnace needs—your J & C distributor

E. E. SOUTHER IRON CO.

1952 Kienlen Avenue

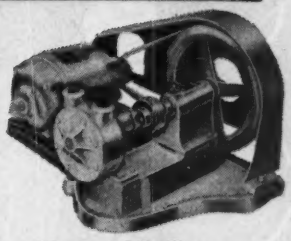
St. Louis 20, Mo.

SINCE 1926—In the application, design and manufacture of pumps—separators—hydraulic accessories.

KRAISSL

PUMPS and SEPARATORS for industrial oil burner service

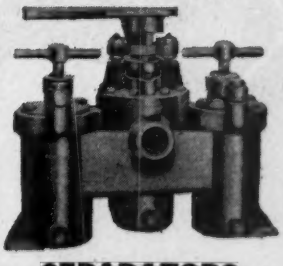
• direct burner service • booster service on pump type burners • simplex and duplex • standard and high pressure •



Class 60 Pumps

Of the internal gear type, the "60" is machined to close tolerances—for maximum vacuum characteristics with heavy and cold oil. The outstanding design advantage is the ball bearing, V-belt reduction drive—connected to pump by means of loose coupling which eliminates side deflection from pump shaft. Suction and discharge sizes from ½" to 2". Capacities, 75 to 2100 GPH; pressures to 100 psi.

Write for Bulletin A-1193



SEPARATORS

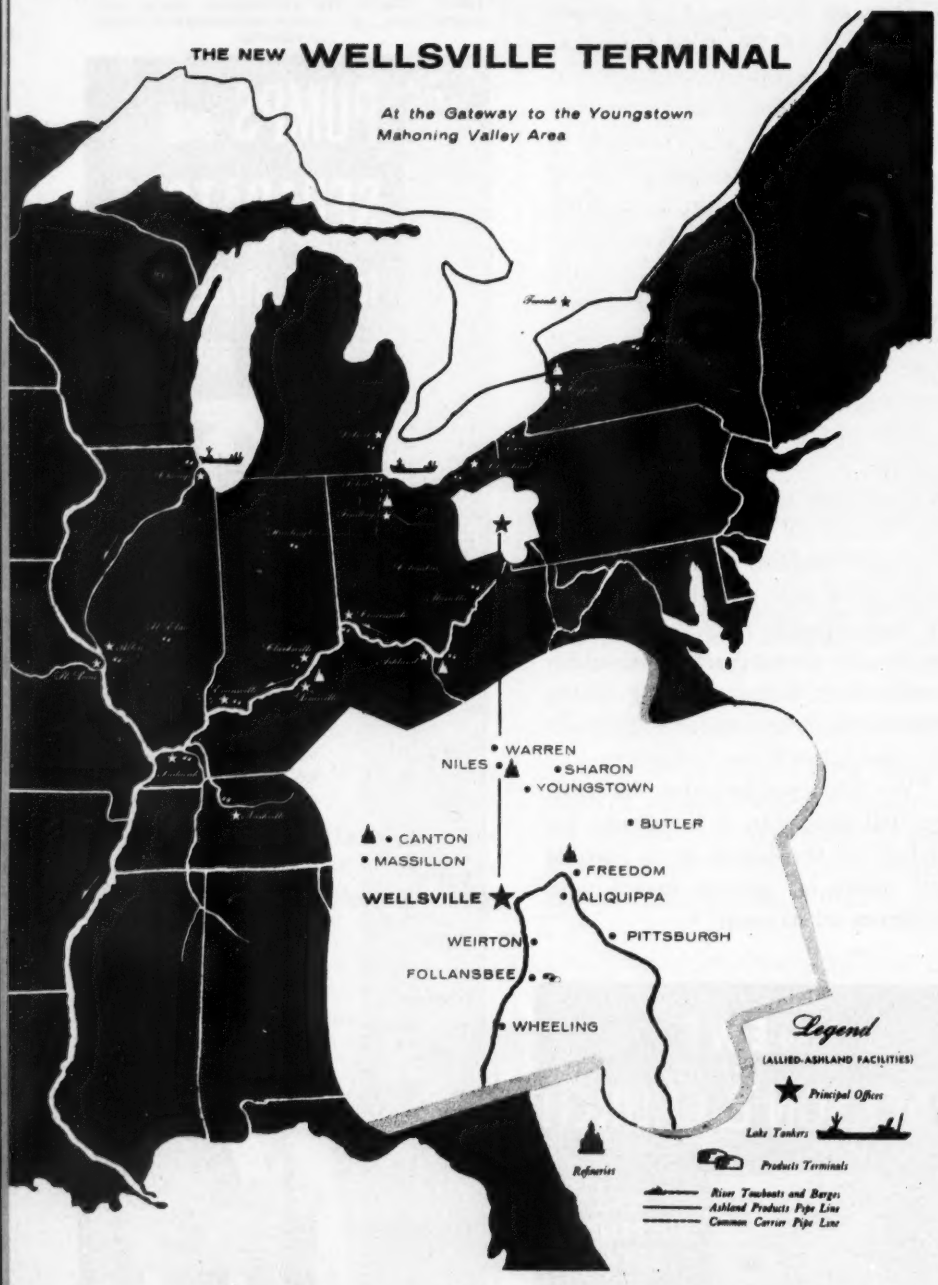
Adequate strainers for both suction and discharge service are essential on every heavy oil installation. Available with Underwriters Labels from ¼" to 4"; larger sizes up to 6".

Advantages of our design are: ease of cleaning; interchangeability of separator baskets — from coarse straining to fine filtration; elimination of replacement filter costs—cleaning of removable separator baskets restores original efficiency.

Ask for Bulletin A-1430

KRAISSL KRAISSL CO

295 Williams Ave., Hackensack, N. J.



Another Piece in the Pattern

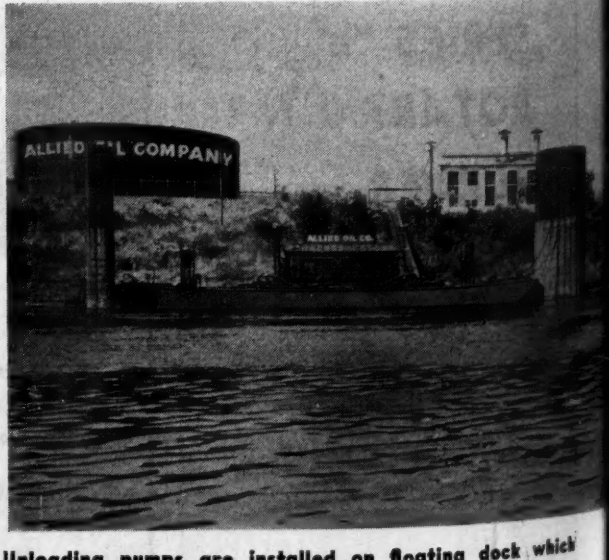
NEWEST TERMINAL built by Allied Oil, Cleveland, is located at Wellsville, Ohio, and is described in a folder from which the pictures on these pages were taken. The terminal has been designed to provide heavy oils regardless of weather conditions.

This means that a continuous supply of free-flowing oil must be available at the loading rack—at sufficiently high temperatures, particularly during cold weather, to offset any drop in the temperature of the oil from the time it leaves the terminal until it reaches the point of delivery.

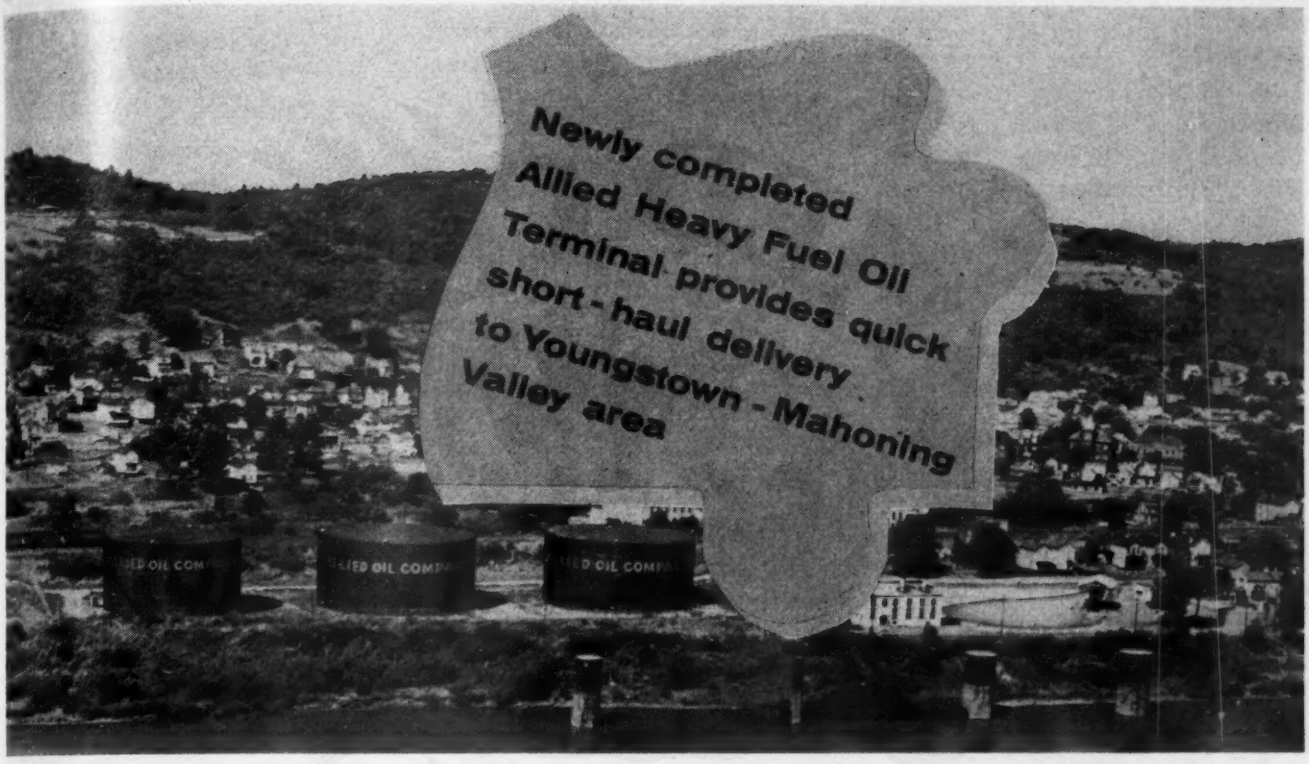
Each of the three storage tanks at the Wells terminal has a large suction heater at the base of the tank. These suction heaters supplied with steam at 150 psig can heat heavy oil from 90°F up to 180°F at a rate of 500 gpm.

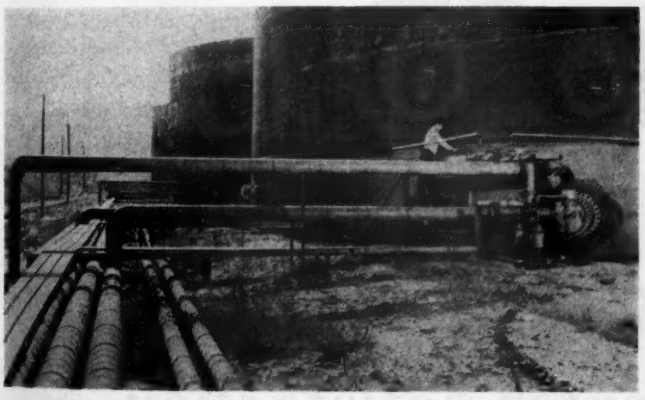
Internal heat is supplied by vertical fintube heaters automatically regulated to maintain oil in storage at any desired temperature. Thus, from barge to storage; from storage to truck; and finally, from truck to ultimate consumer, the heavy oil is kept in a free flowing condition no matter what the weather might be.

Storage terminal for heavy oil is supplied by Allied's affiliated Mississippi-Ohio fleet of 94 barges and eight towboats.



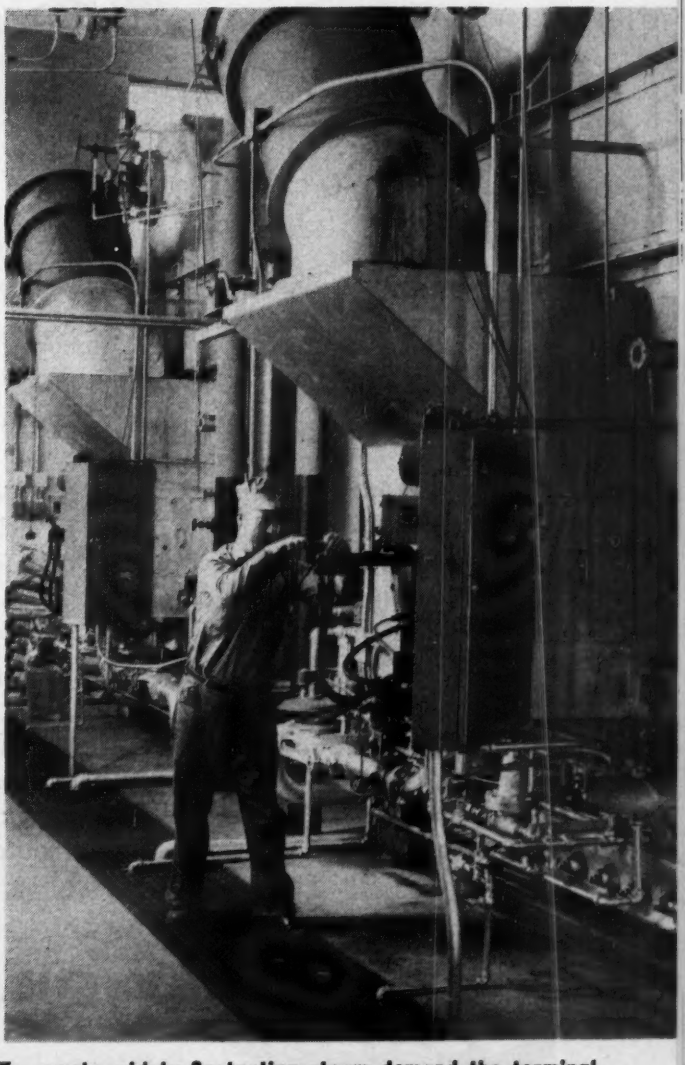
Unloading pumps are installed on floating dock which stays level with barges regardless of river conditions.





Large suction heater at the base of each tank brings oil to required temperature for faster loading and quicker delivery.

Two 6,000 gal. oil transports can be filled in about 12 minutes. Four swivel-jointed spouts permit easy loading of trucks.



To supply widely fluctuating steam demand the terminal is equipped with two water tube packaged generators.

The Sign of bigger dealer profits

. . . *greater customer satisfaction*

"Certified Comfort" is a plan designed to help Shell Dealers build bigger sales and greater customer satisfaction. At the same time, it enables the dealer to assure the homeowner a quality fuel and expert oil heating service for the entire season.

With the "Certified Comfort" Plan, the Shell Fuel Oil Dealer certifies top quality heating oil and assures his customers of premium service, including degree-day system deliveries, anti-corrosion treatment of fuel tanks and metered delivery receipts.

To thoroughly acquaint fuel oil consumers with the "Certified Comfort" theme, Shell has prepared a complete advertising program, which includes television, radio, outdoor, newspaper and direct mail—all available to the Shell Fuel Oil Dealer. This program is specifically designed to increase sales . . . and profits.

You, too, can profit with the "Certified Comfort" Plan. Call the local Shell office for complete details. Remember, the "Certified Comfort" Plan is a Profit Plan for Shell Fuel Oil Dealers.

SHELL OIL COMPANY

Pacific Coast OHI Convention expected to draw record Crowd

A RECORD CROWD is expected to attend the annual convention of the Pacific Coast Distribution Division, Oil Heat Institute of America, to be held April 25, 26 and 27 in the Multnomah Hotel, Portland, Ore.

The program will get underway with the annual Pacific Coast distribution division golf tournament on April 25 and will close with the annual banquet and entertainment Saturday night, April 27. Preceding the convention, the annual budget meeting of the OHI Northwest regional advisory committee will be held April 24.

Among speakers who will address business sessions of the convention will be Hon. Fred Seaton, secretary of the Interior, U. S. Government; Charles H. Burkhardt, national secretary, distribution division, OHI of America; Fred Heaney, chairman, distribution division, OHI of America, Tim Loizeau, vice-chairman, Eastern regional division, OHI; H. C. Auld, Jr., chairman of the board, Oregon OHI; M. N. Vining, chairman, OHI Northwest regional advisory committee, and Jerry Warrington, OHI of Washington.

Co-chairmen of the convention are Al Loucks and James C. Yeomens. Fred C. Macdonald, president of the Oregon OHI, will call the convention to order.

Toronto Chapter, OHA, elects new officers headed by Birch

NEWLY-ELECTED president of the Toronto Chapter, Oil Heating Association, is Fred W. Birch, Elias Rogers Co., Ltd., who was named in recent elections held by the group.

Other officers are C. W. Fitzwilliam, B. A. Oil Company, Ltd., vice-president, and J. D. MacKenzie, Supertest Petroleum Corp., Ltd., secretary-treasurer.

Directors include M. J. Bowes, Lake Simcoe Ice & Fuel Ltd.; R. Cheeseman, Brompton Petroleum, Ltd.; T. E. Hutton, Shell Oil Co. of Canada, Ltd.; E. R. Purves, Liquifuels, Ltd.; G. Rowswell, Rowswell Fuel Oil Co.; A. T. Thomson, B. Sc. P. Eng., Liquiflame Oils, Ltd.; W. Tulloch, Tulloch & Stephen Ltd., and N. H. Regan, managing Director of the Toronto Chapter.

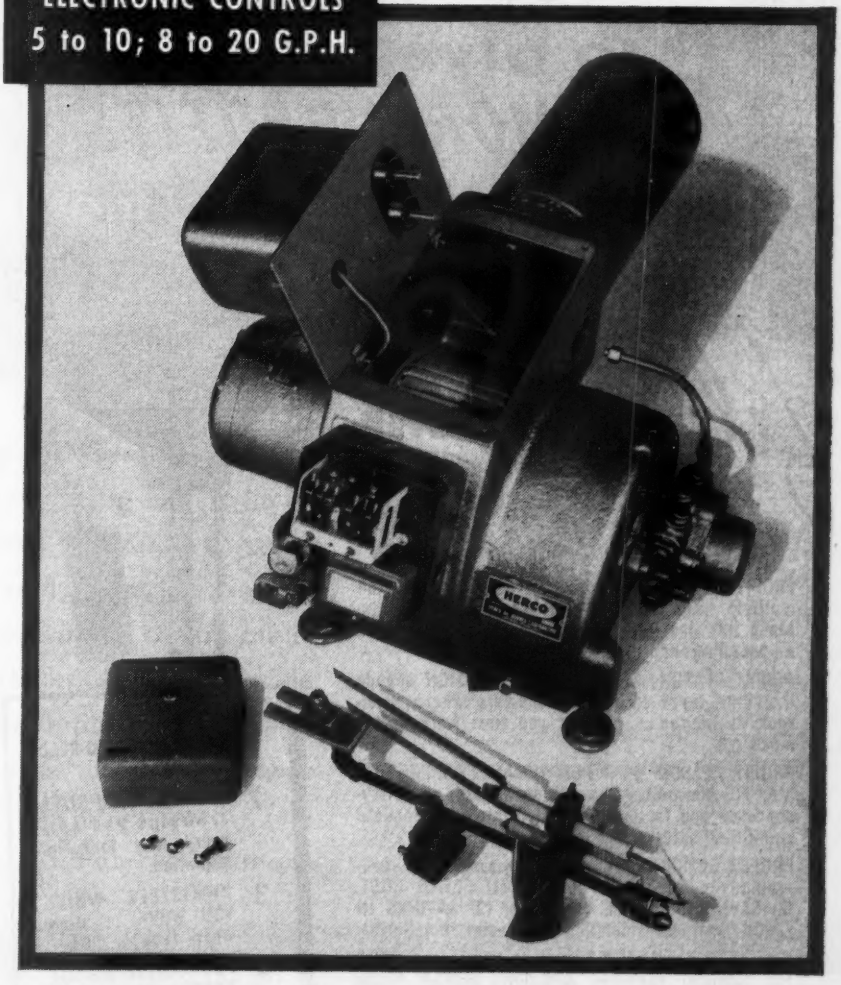
Plans for an extension of association activities during the coming year are underway.

Ray Horan speaker at Meeting of Conn. Better Heat Council

THE PRESENT situation in the oilheating industry was discussed by Ray Horan at a meeting of the Connecticut Better Home Heating Council, Inc., March 25, in Hartford, Conn. Horan is a former director of sales education for General Electric, national organizer of the distribution division of the Oil-Heat Institute of America, Inc.; honorary president of the National Association of Oil-Heating Service Managers.

NEW
ELECTRONIC CONTROLS
5 to 10; 8 to 20 G.P.H.

THE BURNER YOU HAVE BEEN LOOKING FOR!



HERCO Commercial Burners with Electronic Controls comply with new UL requirements effective Jan 1957.

For No 2 Fuel Oil. Firing Ranges: Model GS-3 (illus) 5-10 GPH; Model P-50, 8-20 GPH. M-H controls.

For the price there's no comparison!

NOTE: Cut inventories in half! Two burners ranging 5–20 GPH means easier stocking, easier selling. Free catalog,
WRITE: HERCO OIL BURNER CORP., LANCASTER, PA.

OIL THRIFTY
HERCO

Western Airconditioning Show listed May 4-8 in Los Angeles

A PROGRAM combining conference features with exhibits of airconditioning and related equipment will feature the Western Air Conditioning, Heating, Ventilating and Refrigeration Exhibit and Conference to be held May 4-8 in Shrine Exposition Hall, Los Angeles, Calif., under the sponsorship of the Western Air Conditioning Industries Association.

Panel sessions are planned to emphasize the importance of modernized or new equipment for efficient operation of business establishments and to indicate potential increase in income from such installations.

The event will be open to the trade only the first three days and, the last two days, May 7 and 8, to homeowners interested in renovation or building.

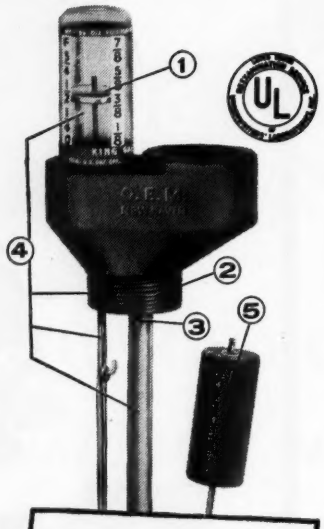
The sponsoring association also has announced formation of the Air Conditioning Research Foundation dedicated to research and educational projects of benefit to the industry.

the NEW "Combination"

to give you

MORE PROFITS...

COMBINATION KING *fill* ALARM-GAUGE



PROFIT REASON #1 — Now you can enjoy the multiple advantages of two great products combined into one assembly for EASIER HANDLING on oil installations.

PROFIT REASON #2 — COMPACT DESIGN speeds installing, even in "tight" quarters where headroom is limited . . . saves you time working out close fits.

PROFIT REASON #3—PERFORMANCE-GUARANTEED King Fill Alarm-Gauges are Underwriters Laboratory-approved and factory-certified to provide adequate tank-filling safety.

PROFIT REASON #4 — Factory-assembled, two-products-in-one makes possible (1) LOWER COST, (2) SAVINGS IN TIME on-the-job, (3) SAVINGS IN EFFORT with less handling and easier installation.

Fig. #600-1 with 1½" bottom (male) and 1¼" top (female) openings and Fig. #600-2 model with 2" bottom (male) and 1¼" top (female) openings are designed for vertical 42"-44" and horizontal 26"-27" tanks.

NOTE: King Fill Alarms and King Leakproof Tank Gauges are available individually, too. Write for Bulletins FA 500-257 and TG 14-257.

For complete details, WRITE OR PHONE for Bulletin KAG-457

1 **GAUGE EASY-TO-READ from all sides.**

2 **WIDE RANGE OF SIZES ... helps you sell every new tank installation.**

3 **"WHISTLES WHILE YOU WORK" ... stops when tank is full.**

4 **CORROSION-PROOF PARTS assure long-lasting, flawless operation.**

5 **ACCURATE resin-treated float won't absorb moisture or deteriorate.**

O.E.M. OIL EQUIPMENT Mfg. Corp.

171 Derby Ave. New Haven, Conn.

Crawford heads New England Independent Oil Men's Assn.

NEW OFFICERS of the Independent Oil Men's Association of New England, Inc., Boston, elected at the group's mid-winter meeting in Boston, have been announced. Robert L. Crawford, president of Pacific Oil Co. of Fall River, succeeds Robert W. Carney as association president.

Re-elected vice-presidents were Carl W. Blanchard, president of Wyatt, Inc., New Haven, Conn.; John J. Gill, president of Petroleum Heat and Power Co., Providence, R. I., and John L. Matthewman, vice president of White Fuel Corp., South Boston.

Richard L. Gardner, general manager of General Heat and Appliance Co., Boston, was re-elected treasurer. Thomas J. Scott, general manager of Buckley and Scott Co., Watertown, was elected secretary.

Elected directors for two years were John P. Birmingham, president, White Fuel Corp., South Boston; Robert W. Carney, president, Carney-Young Utilities Corp., Brighton; H. E. Davenport, vice-president, Pocahontas Fuel Co., Salem; Augustus L. Dwelley, president, Automatic Heating Corp. of Massachusetts, Boston.

Also, Louis E. Gardner, president, General Heat and Appliance Co., Boston; Kenneth T. Howe, vice president, Jenney Mfg. Co., Chestnut Hill; George D. Kaneb, president, Union Oil Company of Boston, Revere; A. R. Sandri, president, A. R. Sandri, Inc., Greenfield; John W. Scott, president, Buckley and Scott Co., Watertown, and Frederick A. Whetton, president, Whetton's Oil Co., Needham.

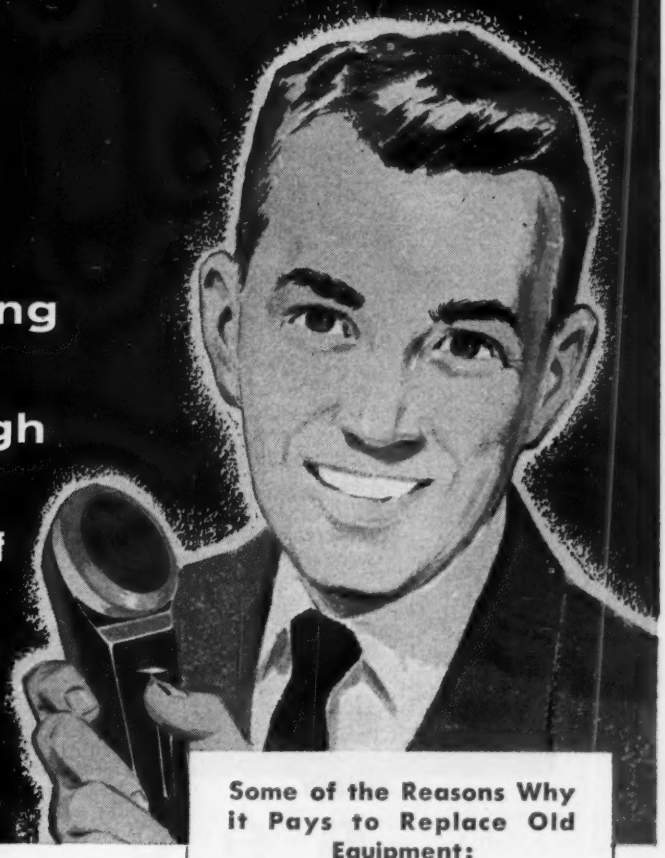
Robert W. Fawcett, president of Robert Fawcett & Sons Co., Inc., Cambridge, was elected a director for one year.

Tennessee Oil Men to hold Convention in Knoxville

THE SPRING convention of the Tennessee Oil Men's Association will be held May 16, 17 and 18 in the Andrew Johnson Hotel, Knoxville, Tenn. Reservations may be made with the Association office at 1811 Division, Nashville, Tenn.

REPLACE WITH RCA . . . AND SAVE !

You can own new RCA 2-Way Radio for what you are paying in inefficiency and high maintenance costs of obsolete equipment !



Some of the Reasons Why it Pays to Replace Old Equipment:

- *Improved performance from higher power*
- *Lower maintenance costs*
- *Reduction of downtime*
- *Opportunity for minimizing interference*
- *Improved operator morale*

The company that needs a new 2-way radio system is already paying for it in high maintenance costs and reduced efficiency. You're paying for the best—why not own it? With dependable new RCA mobile equipment, your investment will be protected for tomorrow with 6/12 volt interchangeability, and easily changeable components to provide split-channel operation. You'll get these plus assurances of lowest standby battery drain and low tube replacement costs, simplified "rainbow tuning," and other quality features only offered by the leader in radio and electronics.

An RCA Communications Representative will gladly explain how easy it is to own this dependable RCA equipment, including low-cost RCA financing and services of the RCA Service Company to keep your equipment operating at its peak. Mail coupon below for complete details.

RCA 2-WAY RADIO

Service by RADIO CORPORATION of AMERICA
COMMUNICATIONS PRODUCTS
CAMDEN, N. J.

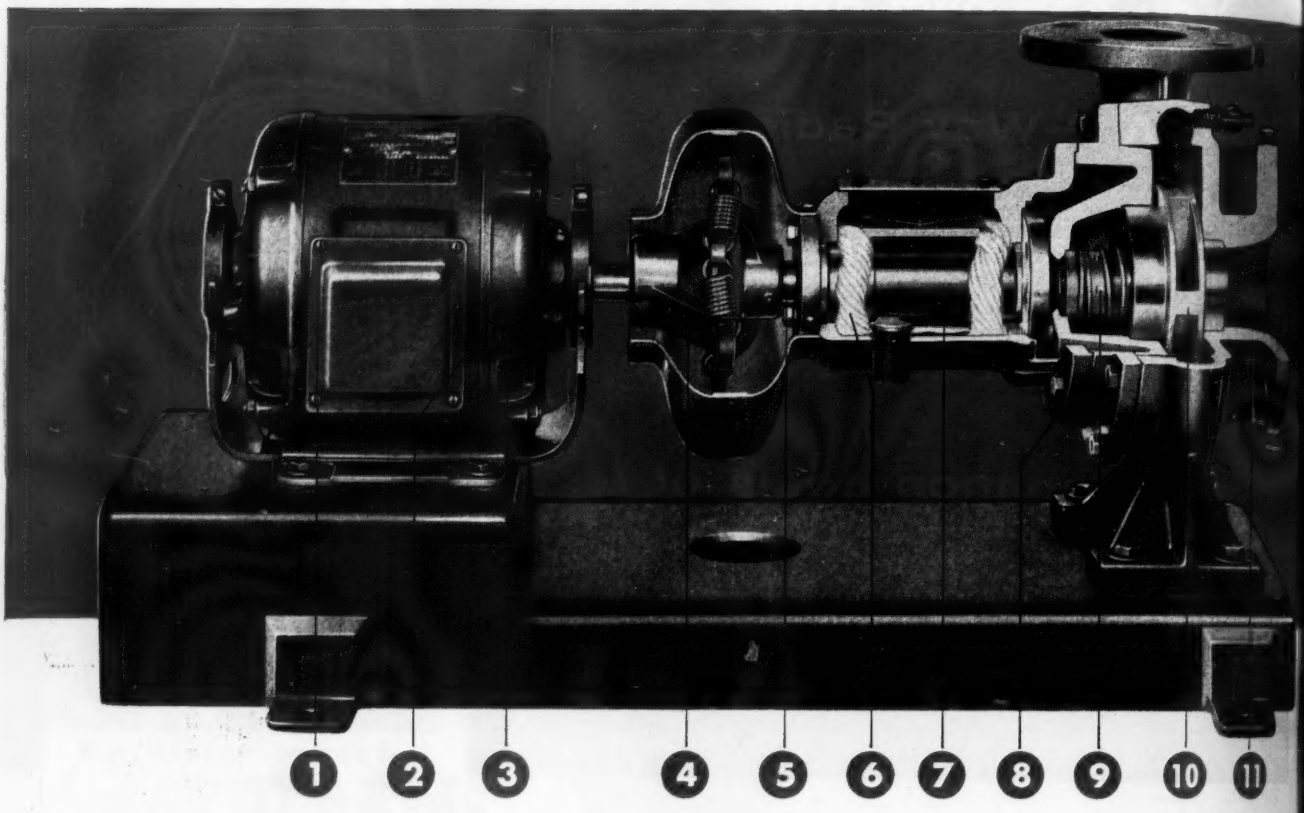
RADIO CORPORATION OF AMERICA
Communications Products
Dept. R-252, Building 15-1, Camden, N. J.

☐ Please send me complete information on 2-Way Radio equipment for use in_____

☐ Have RCA Communications Specialist make FREE radio survey of my business

NAME_____ TITLE_____
COMPANY_____
ADDRESS_____
CITY_____ ZONE_____ STATE_____

FOR CIRCULATING WATER *Silently*



B & G UNIVERSAL PUMPS...for larger installations

The circulating pump in a hot water heating or chilled water cooling system is the connecting link between the mechanical equipment in the boiler room and the structure itself. *Silent, vibrationless* operation is therefore the prime requirement in a pump for this type of service. The features noted above are the reasons why the B&G Universal Pump fully meets this need.

THE MOTOR

1. **Extra quiet.** The Universal Pump motor is specially constructed, tested and hand-picked for extra-quiet operation.

2. **Sleeve bearings.** Motors are equipped with oil lubricated sleeve bearings—essential to silent operation and long life.

3. **Mounting.** Universal motors, through 5 HP, are NEMA ring-type mounted and completely suspended in noise-dampening rubber. All motors are drip-proof.

THE PUMP

4. **Coupler.** Self-aligning, spring-type...another warranty of silent operation, plus excellent pump and motor protection against the stresses of starting torque.

5. **Shaft.** Big—oversized—affording large bearing surfaces. Made of special alloy steel, polished to mirror finish. Heat-treated integral thrust collar absorbs end-thrust... lengthens seal and motor bearing life.

6. **Lubrication.** Genuine oil circulating. No grease to channel or harden. Oil level indicator permits visual check.

7. **Sleeve bearings.** An essential for quiet, vibrationless operation and long life of both pump and motor. An outstanding Universal feature.

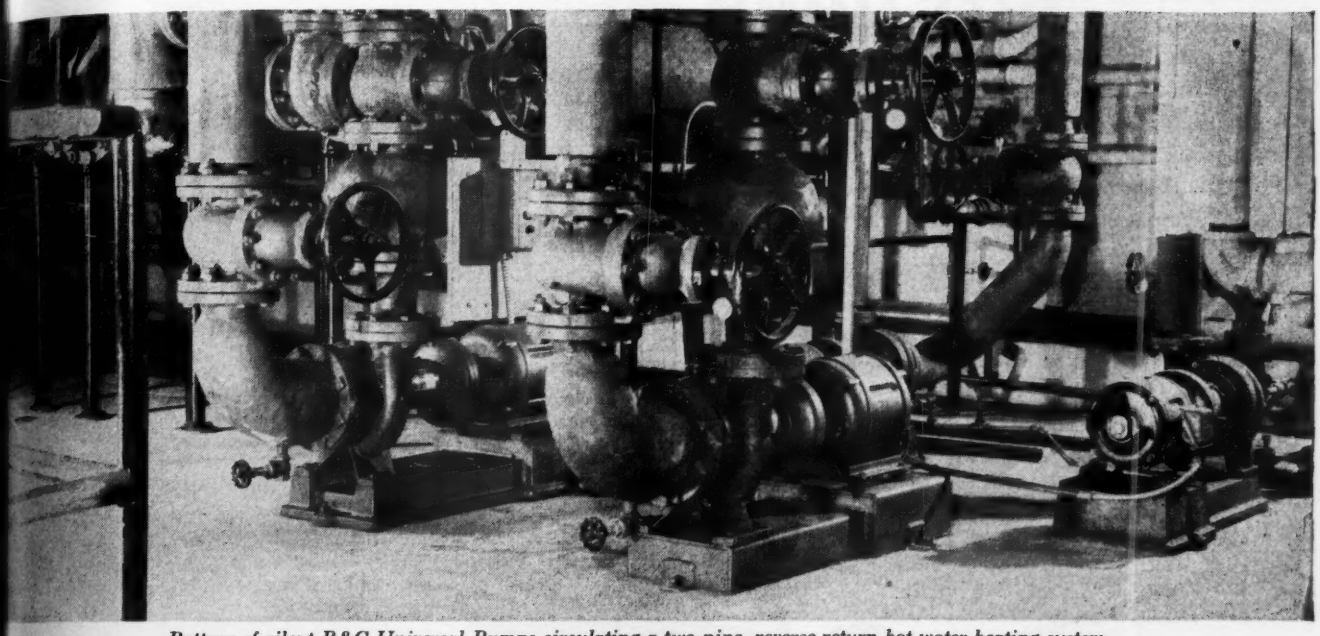
8. **Vertical split case—removable bearing frame.** The entire bearing frame assembly with impeller is easily removed from volute. No pipe connections to break or motor to remove...all the advantages of split case design. All bearing frame assemblies are interchangeable.

9. **"Remite" mechanical seal.** Positively prevents water leakage up to full design pressures. The seal is self-lubricating and features a floating seat of diamond-hard "Remite"—a B&G development.

10. **Hydraulically balanced impeller.** Balancing chamber and thrust pressure relief holes in the impeller reduce thrust to a minimum.

11. **Solid volute.** Support feet directly below volute absorb piping strains without distorting pump alignment.

IN HEATING AND COOLING SYSTEMS



Battery of silent B&G Universal Pumps circulating a two-pipe, reverse return hot water heating system. .

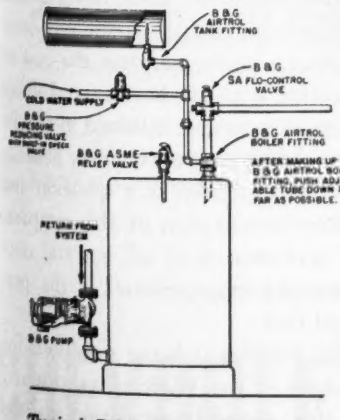
B & G BOOSTER PUMPS

The fact that over 2,000,000 B&G Boosters are in operation today is ample evidence that their quality has never been challenged.

These pumps satisfy the most exacting requirements of circulated water systems for heating and cooling. Above all they are *quiet, vibrationless*...the prime essential of a circulating pump. B&G Boosters are dependable, perform faithfully for years without endless minor and major repairs. They are backed by a manufacturer equipped to give assistance in any problem of design or installation and whose distributors maintain adequate stocks to serve your needs.

For a complete description of the features which have made the B&G Booster the preferred pump, send for Bulletin IA-856.

The 300 homes of this building project are heated with B&G Hydro-Flo forced hot water systems.


B&G AIRTROL TANK FITTING
B&G SA FLO-CONTROL VALVE
COLD WATER SUPPLY
B&G ASME RELIEF VALVE
B&G AIRTROL BOILER FITTING
AFTER MAKING UP B&G AIRTROL BOILER FITTING, PUSH ADJUSTABLE TUBE DOWN AS FAR AS POSSIBLE.
RETURN FROM SYSTEM
B&G PUMP

Typical B&G Hydro-Flo System with built-in domestic water heater.

BELL & GOSSETT

COMPANY

Dept. ET-7, Morton Grove, Illinois

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14 Papers, two Symposiums to feature ASHAE Meeting

PRESENTATION of 14 papers and two symposiums will feature the semi-annual meeting of the American Society of Heating and Air Conditioning Engineers to be held June 24, 25 and 26 in the Manoir Richelieu, Murray Bay, Quebec, Canada.

A symposium on airconditioning instrumentation will be moderated by Prof. C. H. Pesterfield, East Lansing, Mich. A symposium on sound and vibration will be moderated by J. B Graham, Buffalo, N. Y.

Of the 14 papers to be included on the program, Walter A. Grant, New York, program and papers committee chairman, indicates that one set dealing with the subject of sound will be presented prior to the symposium on sound and vibration.

On the lighter side, there will be the annual ASHAE golf tournament, the semi-annual banquet and other events. Arrangements are being made by the Montreal Chapter Committee, under the general chairmanship of D. Lorne Lindsay. Assistant chairmen are W. G. Hole, H. G. S. Murray, B. J. Horsburgh and R. J. Ker. Honorary chairmen are F. A. Hamlet and G. Lorne Wiggs.

Here's Why Sinclair Fuel Oil Distributors

SELL MORE!

Sinclair Fuel Oil is easy to sell. It burns clean — keeps service calls to a minimum. Sinclair distributors get extra sales support. Strong ads are designed for local use. A special sales training program offers new profit-making ideas. Vast production and storage facilities assure Sinclair distributors of a steady and ample supply of products.

Build a better business. Increase your profits. Write for details *today*. Sinclair Refining Company, 600 Fifth Ave., New York 20, N. Y.

SINCLAIR FUEL OIL ***with RD-119®***

New Jersey Dealers convene in Asbury Park May 15-17

THE 19TH ANNUAL convention of the Fuel Oil Distributors' Association of New Jersey, Newark, N. J., will be held in Asbury Park, N. J., May 15, 16 and 17. Chairman for the convention, Reg Matthews, has appointed the following committee to assist with arrangements: Williard Hagerman, entertainment; Walter Harnisch, treasurer; Herman Mendell, registration; Thomas Farrell, program; Charles Jacobs, luncheon and dinner reservations, and Peter W. Hunt, advertising.

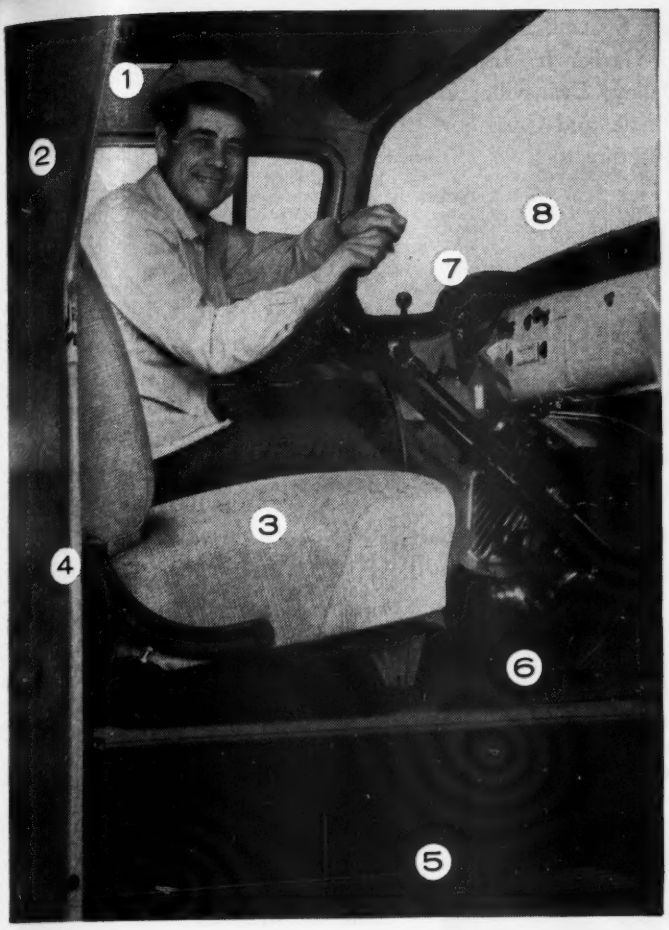
A member group, the Essex County Fuel Dealers' Association, has announced an advanced oilburner class being held at the Essex County Vocational School, Irvington, N. J. The course is being held every Tuesday evening through May 21st.

Manual by OHI of Washington educational Aid for Industry

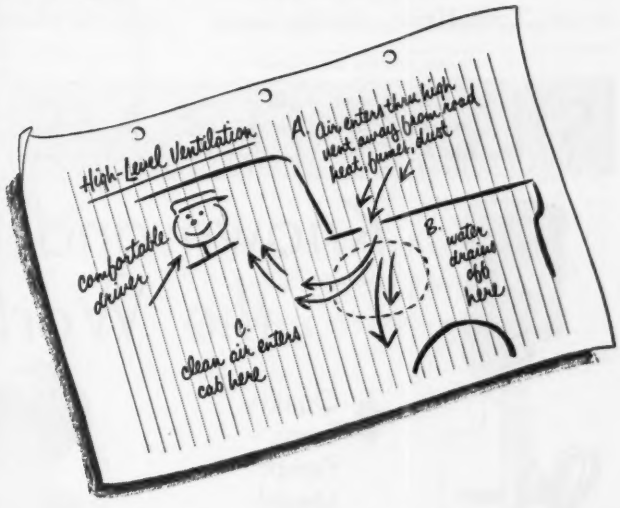
AN EDUCATIONAL AID prepared by the Oil Heat Institute of Washington is a new, 32-page manual, "Your Guide to Modern Living," outlining the advantages of oil heat and comparing its performance and cost with that of gas.

The manual describes the equipment and its operation involved in various types of home-heating and various kinds of fuels commonly used. Another section compares the cost of oilheating with gas heating and shows the greater expense involved in the use of gas throughout the country generally. A final section is a question and answer presentation of the comparative performance of oil, gas and electricity, showing why oil is the preferred fuel.

The booklet is being produced for members of the Washington OHI and not for general circulation to the public.



in a Chevy cab, even the air is better!


High-Level Ventilation
A. Air enters thru high vent away from road heat, fumes, dust
comfortable driver
B. water drains off here
C. clean air enters cab here

...more evidence that Chevrolet Task•Force Trucks are engineered better and built better for bigger savings!

These cab features give you extra comfort and safety behind the wheel, extra savings on truck maintenance. And they're proof that the most modern trucks for your money are Chevrolets!

The drawing "doodled" above shows how Chevy's High-Level ventilation provides a *comfortable* interior . . . and the numbers in the big picture point out other advantages equally as good to have around you when you haul! They include:

1 *A roof that's specially built for safer, more comfortable hauling.* Sturdy all-steel construction adds to safety; roof's unique inner reinforcement insulates the overhead against heat.

2 *A gleaming, durable baked enamel outside finish.* Here's the reason your Chevy's exterior will resist wear better, look like new longer! This handsome finish is available in a wide variety of colors.

3 *A Nu-Flex seat that beats the bumps!* Deep-comfort coil springs, metered air shock damping and 3-way adjustment let you take it easy on tough jobs!

4 *A cab that's rustproofed to last!* Doors and similar surfaces are rustproofed on the inside as well as on the outside by immersion.

5 *Concealed Safety Steps for convenience.* Inside each cab door, they give you firmer footing, make entering or leaving the cab easier and safer.

6 *An undercoated floor, cowl side panels and fender flanges.* Virtually all exposed surfaces on the underside of the cab are protected by an anti-rust coating.

7 *A non-glare instrument panel to make driving safer!* The textured finish on upper portion of Chevy's instrument panel reduces blinding sun reflections, minimizes eyestrain.

8 *A reliable 2-speed electric windshield wiper* on each side.* Powered by electricity, their action remains *constant* under all conditions.

Such advantages as these (we've shown only a few) combine to make *everything* better in a 1957 Chevrolet truck! You'll see for yourself when you visit your Chevrolet dealer's. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

**Standard in Series 5-6-7-8-9-10000 models.*

. . . biggest sellers because they're the biggest savers! CHEVROLET

CHEVROLET TASK•FORCE 57 TRUCKS

Warm Air Heating Assn. lists Officers named at Convention

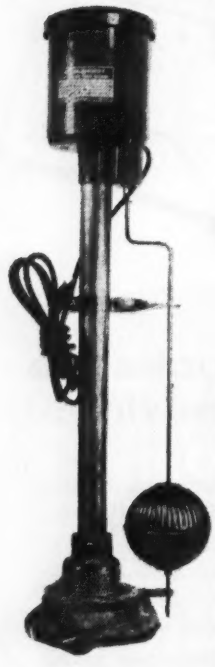
OFFICERS and directors of the Sheet Metal and Warm Air Heating Contractors' Association of Indiana, Inc., elected at the recent 39th annual convention in Indianapolis, Ind., have been announced as follows: Donald S. McCloskey, Indianapolis, president; J. W. Ridgeway, Frankfort, first vice-president; Maxwell Goff, South Bend, second vice-president; H. W. Meggs, New Castle, secretary; Frank E. Anderson, Terre Haute, executive secretary; J. R. Walker, South Bend, treasurer; William E. Garber Jr., Indianapolis; A. C. Tilley, Evansville; Z. V. Hazelton, Muncie, and Chris Sorensen, Indianapolis, directors.

Appointed by President McCloskey to be sergeants-at-arms were Fred Snyder of Lafayette and John Kuharic of Mishawaka.

Present directors who will continue to serve until 1958 are Ben Flock, Hammond; L. W. Widney, Auburn; Russell A. Harris, Bloomington, and John E. Hartmann, Terre Haute.

SILENT-FLAME

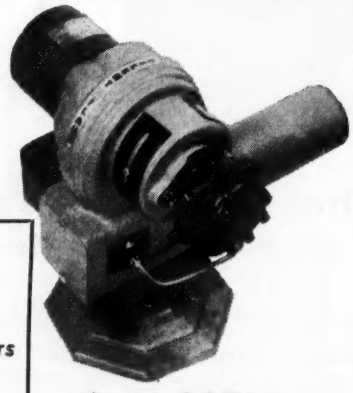
Known and Used the World Over!



Quality Sump Pump: Model G-200.

18 Different Oil Burner Models .50 to 40.0 Gph.
Approved by Underwriters Laboratories, Inc.

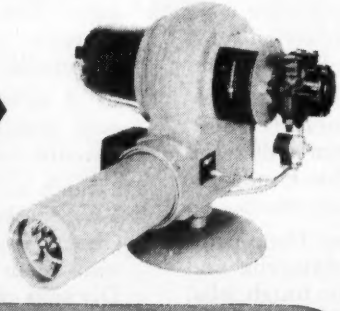
Commercial Standard CS-75
CSA Approved



Model TB .75 to 3.0 Gph.
One-Piece Cast Aluminum Housing

Representatives and Distributors: Some Exclusive Territories are Still Available—Contact us NOW!

Model BS .75 to 10.0 Gph.
Solenoid Shut-Off
One-Piece Cast Aluminum Housing



SILENT-FLAME Mfg. Co. Inc.
BLUE POINT, L. I., NEW YORK (EMerson 3-6202)
New England Representative: Morris Chapman, 20 Bradford Road, Natick, Mass.
Canadian Distributor: Premier Heating Appliances Co., 65 Mozart, E., Montreal, Canada

2nd annual installation Fete of OHILI to be held April 27

A GALA EVENING is promised members, their ladies and guests by the Oil Heat Institute of Long Island April 27 at the Engineers Country Club, Roslyn, L. I., on the occasion of the group's second annual installation dinner-dance. Ray Nathan is chairman for the event.

At the March meeting of the association in Knapp Hall, Farmingdale, Russ Watson, executive secretary of the New York Petroleum Industries Committee, discussed how pending state legislation will affect oil dealers.

Capt. Thomas Bowes addresses Delaware Valley Assn. Meeting

SPEAKER at a meeting March 11 in Buck Hotel, Feasterville, Pa., of the Delaware Valley Fuel Oil Dealers' Association was Capt Thomas Bowes, USN, (retired), who spoke on "Bird's Eye View of the Oil Industry." Following his talk, he answered questions from the audience.

North Carolina Oil Jobbers list burner service School

A TWO-SESSION oilburner service school is scheduled by the North Carolina Oil Jobbers' Association at North Carolina State College, Raleigh, N. C. The same course of instruction will be offered at each week-long session, the first beginning April 22 and the second, April 29. Attendance is limited to 30 persons each week.

Session on brain Storming to feature NHAW Convention

A SESSION on brain storming techniques will feature the spring convention and meeting of the National Heating & Airconditioning Wholesalers, Inc., to be held May 6 and 7 in the Broadmoor Hotel, Colorado Springs, Colo.

Under the direction of a professionally trained man, the new technique for stimulating thought and developing new ideas to upgrade an industry or business will be explored. Also featured will be a session on the cost of doing business.

✳ **COMPLETELY INTERCHANGEABLE**
—will replace any fuel-unit now on market

MOUNTS IN ANY POSITION
—for easier changeover

360° PORT ARRANGEMENT
—optional ports for convenience and serviceability

COMPACT AND LIGHTWEIGHT
—permits installation in the tightest of quarters

CONVERTIBLE
—one and two pipe changeover
—without extra parts

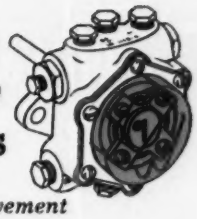
LOW-FRICTION SEAL
—and life-time lubricated outboard seal bearings

Webster Service Saver

to know more about the fuel-unit you'd design for yourself

Talk to the man from Webster

THE ROTARY FILTER THAT NEVER CLOGS



— the first major improvement in fuel pumps in 25 years

After eight years of developing and testing, Webster has applied a self-cleaning rotary filter principle to the new "ServiceSaver" fuel-unit. Internal screens and strainers have been eliminated. So have clogging and cleaning. The rotary blade renews the "filtering" surface 7000 times a minute allowing only filtered oil with a particle discrimination of 125 microns to pass to the nozzle. This is equal to the filtering action of 100 mesh screen.

Catalog data sheet A9A1 tells the entire story, complete with specifications, installation drawings and dimensions, ratings, etc. Write for your copy; you'll be glad you did.

INDUSTRIAL DIVISION
WEBSTER ELECTRIC
RACINE · WIS

Franklin Adv. A108

Keep payloads moving faster . . . at less cost!

speed liquid handling with the

INGERSOLL-RAND

MOTORPUMP

Pumping costs go down—oil keeps on the move—payloads reach your customers with dependable regularity—when you put Ingersoll-Rand Motorpumps to work.

They're rugged and extra powerful for their compact size and stay on the job far longer without maintenance attention! Installation is easier because no special foundation or alignment is needed—they mount and operate in almost *any* position with equal efficiency.

Sizes from ¼ to 75 hp . . . 5 to 2800 gpm capacities. Straight centrifugal motorpumps as well as self-priming types handle practically all oil moving needs, faster and more profitably. Get the latest Motorpump catalog describing the full line or see your nearest Ingersoll-Rand Oil Equipment Jobber.

9-241A

Ingersoll-Rand

11 Broadway, New York 4, N.Y.

Fuel Oil Comm. has Program at API Marketing Div. Meeting

ON TUESDAY MORNING, May 21, the Fuel Oil Committee of the Marketing Division, American Petroleum Institute, New York, N. Y., will present a program featuring two speakers and emphasizing the theme, "Better Living with oil Heat."

One of the speakers selected is to cover new developments in oilfired air-conditioning; the other will discuss relationships between fueloil growth and equipment sales, past and future.

The Division is meeting at the Chalfonte-Haddon Hall Hotel, Atlantic City, N. J., May 20 to 22, with the fueloil portion of the program scheduled for 9:00 A.M. on the second day.

Robert L. Weeks, assistant director, Esso Research and Engineering Co., Linden, N. J., will explore the first topic, "Year-'round Airconditioning with oil Fuel." It is to be a visual report of a new product development by Servel Corp., in collaboration with Esso's laboratories, which has resulted in an oilfired unit using the same oil-burner to heat the home in winter and cool it during the summer months.

The second speaker will be Fred C. Haab, president, F. C. Haab Co., Philadelphia, Pa., developing the theme, "Equipment Selling is the Key." Haab's talk will concentrate on the fact that heating oil volume can grow only so fast as dealers sell burners and boilers or furnaces.

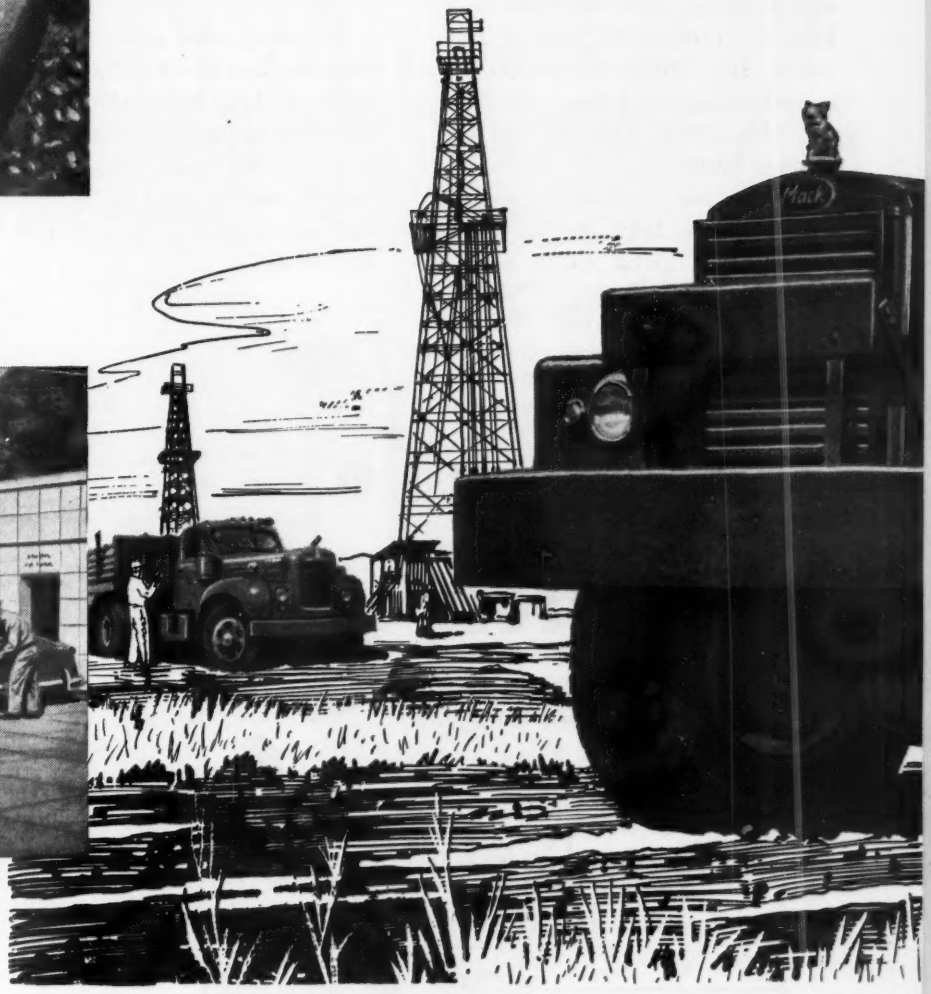
Wisconsin U. Senior receives ASHAE's G. L. Larson Award

A SENIOR in mechanical engineering at the University of Wisconsin, Ronald L. Kausch, received from the Wisconsin Chapter, American Society of Heating and Air Conditioning Engineers the first G. L. Larson Award, established in memory of the late Gustus L. Larson.

As president of the ASHAE in 1936 and as chairman of the Wisconsin University Mechanical Engineering Department, Larson had been an outstanding influence in the heating, ventilating and airconditioning profession.

Pipe laying is a heavy hauling job where the unmatched stamina and performance of Macks pay off—especially over rugged terrain where the going gets really tough.

When it comes to volume hauling, Macks have an industry-wide reputation for economy and the ability to maintain 'round-the-clock delivery schedules.



To make the tough jobs easier...

...especially the challenging, heavy-duty hauling jobs . . . Macks are favorites throughout the petroleum industry. From drilling operations to fuel delivery, you'll find Macks working with top operating economy at the lowest cost per mile and with a minimum of down time. Hub-deep mud, rough terrain, grueling 'round-the-clock service—whatever the job, Mack has the unit that's engineered and built with the thoroughness and precision needed for dependable, cost-saving operation.

Mack makes more of its own components—engines, frames, axles, transmissions—than any other heavy-duty automotive manufacturer. To you, this means assurance that Mack components are made of the finest materials and designed for incredibly long and dependable performance.

Mack Diesel and Gasoline Engines—up to 206 hp with unequaled records for fuel economy and endurance.

Mack Balanced Bogie with Power Divider—the flexible, 4-wheel rear-axle drive that delivers power to the wheels with traction.

Mack Transmissions—models up to 20 speeds . . . acknowledged as the industry's finest, most durable . . . featuring evenly spaced ratios and exclusive Tetrapoid gears.

These are a few of the exclusive Mack features. Why not let your local Mack representative give you the story on the most complete line of heavy-duty trucks and tractors available today. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

MACK
first name for
TRUCKS

4796

Benton defends oil price Hike before Iowa Oilmen

THE HIKE in crude oil prices in January was long overdue, Dwight E. Benton, Standard Oil Co. (Indiana) sales vice president, told a meeting of the Iowa Independent Oil Jobbers' Association, Inc., during the group's 20th annual convention February 20-21 in the Hotel Fort Des Moines, Des Moines, Iowa.

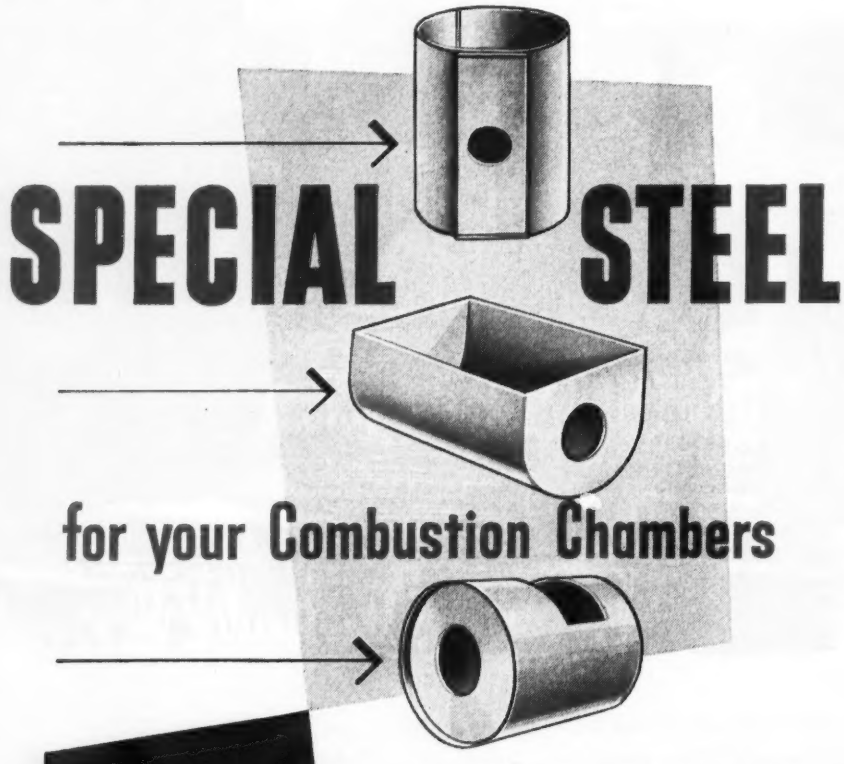
The price of crude oil had been unchanged since 1953 despite soaring costs because excess stocks of both crude and products depressed the market, Benton told the Iowa oilmen. Oil producers were using up inventories of crude oil that were in the ground and that were developed at lower cost, he said.

The Suez Canal crisis changed the supply picture by virtually halting the import of cheap Middle East oil to the United States, and by siphoning off to Europe the excess crude oil in this country, but the need for an increase had been strongly present before Suez, Benton said.

The changed situation, Benton said, meant the price was free to seek a level that was somewhat more realistic in view of the much higher production costs.

"The old cheap inventory had to be replaced with new crude reserves at much higher cost," Benton said. "This was a losing proposition in the long run. And the run kept getting shorter and shorter."

Benton addressed the afternoon session of the convention's opening day. The second afternoon session was devoted to panel discussions on various jobber topics, including "Oil Heat in Iowa" with Robert Gray, editor of FUELOIL & OIL HEAT, as co-ordinator; I. H. Carnes of Clinton and Merle S. Campbell of Des Moines, members, and Robert Hartmann, of Shell Oil, advisor.



Heat-Resisting Sheared to Size

Advantages of Heat-Resisting Steel Combustion Chambers

- No breakage in shipment or handling
- Lighter weight lowers freight costs
- Quicker heating—greater efficiency
- Cleaner heat—better temperature control

Save time and money by fabricating your oil burner combustion chambers from sheared-to-size Ingersoll heat-resisting stainless steel.

This special steel is correct in analysis to withstand high temperatures . . . consistently uniform in quality . . . and has exceptional forming characteristics.

Ingersoll will custom shear it to your specified blank sizes, or multiples thereof (depending on size). And Ingersoll's flexible facilities are geared to handle large jobs or small ones with speed and precision.

Ingersoll does not fabricate combustion chambers

Write, wire or phone for details

B-W T.M.

Ingersoll STEEL DIVISION
Borg-Warner Corporation
New Castle, Indiana

National Petroleum Assn. schedules 54th Meeting

CONVENING April 16-18 in the Hotel Cleveland, Cleveland, Ohio, will be the 54th semi-annual meeting of the National Petroleum Association.

The program will include an industrial relations session, a traffic and transportation meeting, a general session and a meeting of the technical group. G. B. Hunt is president of the association.

Distribution Division retains public relations Specialists

MAHOOL ASSOCIATES, Baltimore, Md., has been retained by the Distribution Division, Oil-Heat Institute of America, Inc., New York 36, N. Y.

Primary purpose of the arrangement is to emphasize to the public the advantages and benefits of an oilheating installation.

New England OHI lists Annual Oil Heat Day

ANNUAL OIL HEAT DAY, comprising the annual meeting of the Oil Heat Institute of New England, the annual directors' meeting and the annual industry luncheon, will be held at the Hotel Statler, Boston, Mass., May 2. Following the luncheon, two speakers to be announced later will discuss major problems now facing the industry.

A. O. Smith

Permaglas® ANNOUNCES

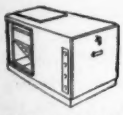
two new money makers for 1957

A THRIFTY SELF-CONTAINED COOLING UNIT IN SIZES UP TO 3½ HP

With a size for every requirement and a price that makes central air conditioning available to thousands more of *your* prospects, the new *Permaglas Self-Contained* may be installed in the attic, basement or wherever most convenient. The *Permaglas Self-Contained* takes the *problem* out of "problem cooling installations"—even in boiler-heated homes—because it can operate independently as well as in conjunction with the warm air heating system. Air-cooled . . . 1¼, 2 and 3½ HP sizes.

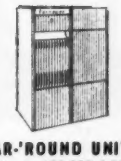
A REMOTE AIR CONDITIONING PACKAGE FEATURING "LAWN LEVEL" AIR INTAKE

The 1957 *Permaglas Remote* is fairly brimming with exciting new features, to make selling a pleasure and installation an easy task. Efficient up-draft design—with cooling air entering at *lawn level*—keeps condensing unit operating at top capacity. Matching *Permaglas Evaporators* are available in a wide variety of types and sizes to fit any warm air unit . . . to overcome any air handling problem. Air-cooled . . . 1¼, 2, 3 and 5 HP sizes.



HORIZONTAL COOLING UNITS
2 and 3 HP
Water-cooled

VERTICAL COOLING UNITS
2, 3 and 5 HP
Air-cooled and Water-cooled



YEAR-'ROUND UNITS
Gas-fired—to 150,000 BTU input
Oil-fired—to 129,000 BTU output
Cooling capacity—2, 3 and 5 HP
Air-cooled and Water-cooled

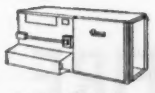
Plus a Full Line of Proven Permaglas® Favorites

HI-BOYS

LO-BOYS

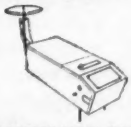
DOWN-FLOWS

Gas-fired———to 200,000 BTU input
Oil-fired———to 156,800 BTU output



HORIZONTALS
Gas-fired—to 140,000 BTU input
Oil-fired—to 252,000 BTU output

HOME HEATING BOILERS
Gas-fired—to 420,000 BTU input



GAS CONVERSION BURNERS
to 345,000 BTU maximum input

CONVERSION OIL BURNERS
to 3.00 GPH firing rate

With the addition of these outstanding new models, *Permaglas* is now—more than ever—your assurance of *the right cooling unit* at *the right price.* And remember that every *Permaglas* heating and cooling unit is fully approved and fully guaranteed by the world-famous A. O. Smith Corporation.

Fill out and return the attached coupon right away, for top air conditioning profits in 1957!

Sales Department, Permaglas Division, Dept. FOH-457
A. O. SMITH CORPORATION, Kankakee, Illinois
Please send me full information on the new Permaglas Air Conditioning line for 1957.

Name.....Title.....

Company.....

Address.....

City.....Zone.....State.....

Permaglas® is on its way

. . . Are You Aboard?

Through research . . . a better way

A.O.Smith

Permaglas Div., Kankakee, Ill.
International Div., Milwaukee, Wis.

makers of famous **Permaglas** glass-lined water heaters . . . **Burkay** commercial water heaters

Calendar of coming Events

APRIL

8–12—North Carolina Oil Jobbers Assn. Management Institute, University of North Carolina, Chapel Hill.

16–18—National Petroleum Association semi-annual meeting, Hotel Cleveland, Cleveland, Ohio.

25–27—Pacific Coast Distribution Division, Oil Heat Institute of America, Inc., annual convention, Hotel Multnomah, Portland, Ore.

27—OHILI, annual installation dinner-dance, Engineers Club, Roslyn, L. I., N. Y.

MAY

1—Connecticut Petroleum Assn. 7th Annual Convention and Trade Show, Statler Hotel, Hartford, Conn.

1– 2—National Warm Air Heating and Air Conditioning Assn. 2nd annual technical conference, Hotel Cleveland, Cleveland, Ohio.

2—Oil-Heat Institute of New England Annual Oil Heat Day, Hotel Statler, Boston, Mass.

4– 8—Western Air Conditioning Industries Association airconditioning, heating, ventilating and refrigeration exhibit and conference, Shrine Hall, Los Angeles.

6– 7—National Heating & Airconditioning Wholesalers, Inc., Spring convention, Hotel Broadmoor, Colorado Spring, Colo.

12–14—Pennsylvania Petroleum Association, Inc., Spring Convention, Bedford Springs Hotel, Bedford, Pa.

13—North Carolina Oil Jobbers Association Spring convention.

15–17—Fuel Oil Distributors Assn. of New Jersey annual convention, Hotel Berkeley-Carteret, Asbury Park, N. J.

16—Independent Oil Men's Assn. of New England semi-annual meeting, Hotel Statler, Boston.

16–17—API Oil Information Committee meeting, Mayo Hotel, Tulsa, Okla.

16–18—Tennessee Oil Men's Association spring convention, Andrew Johnson Hotel, Knoxville, Tenn.

20–22—API Division of Marketing mid-year meeting, Haddon-Hall Hotel, Atlantic City, N. J.

20–24—National Fire Protection Assn. 61st Annual Meeting, Hotel Statler, Los Angeles, Calif.

26–27—National Assn. of Oil Equipment Jobbers Spring directors' meeting, The Cloister, Sea Island, Ga.

26–28—Empire State Petroleum Assn. Spring meeting, Hotel Statler, Buffalo.

JUNE

2– 6—Air Pollution Control Assn. Golden Jubilee meeting, St. Louis.

3– 7—Oil-Heat Institute of America 35th annual convention, Sheraton-Plaza Hotel, Boston, Mass.

5– 7—National Warm Air Heating and Air Conditioning Assn. summer convention, Fairmont Hotel, San Francisco.

10–13—National Assn. of Plumbing Contractors' 1957 National Plumbing and Heating Exposition, Dallas Memorial Auditorium, Dallas, Texas.

13-15—National Oil Jobbers Council mid-year meeting, Shoreham Hotel, Washington.

24–26—American Society of Heating and Air Conditioning Engineers semi-annual meeting, Manoir Richelieu, Murray Bay, Quebec.

30–July 2—Northwest Petroleum Association summer conference, Breezy Point Lodge, Minn.

SEPTEMBER

5– 6—API Oil Information Committee meeting, Broadmoor Hotel Colorado Spring, Colo.

11–13—National Petroleum Assn. 55th annual meeting, Traymore Hotel, Atlantic City, N. J.

OCTOBER

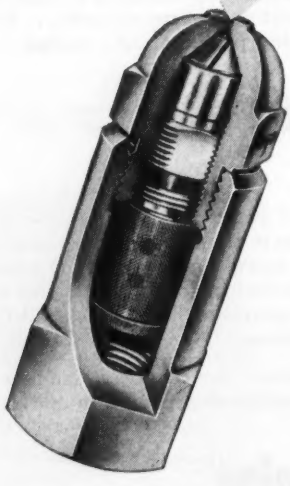
6–10—ASTM Committee D-2 meeting, Sheraton-Park Hotel, Washington, D. C.

16–20—API Division of Marketing, Marketing Research Committee meeting, Camelback Inn, Phoenix, Ariz.

20–22—National Assn. of Oil Equipment Jobbers annual convention and trade show, Hotel Peabody, Memphis, Tenn.

Hago

PRECISION NOZZLES



A SURE-FIRE LEADER!

HAGO PRODUCTS

1120 GLOBE AVE., MOUNTAINSIDE, N. J.

IN CANADA — RICHARDSON, LTD., 462 GILBERT AVE., TORONTO

NOW! FULL POWER SALES

Air Conditioning you can sell installed for as little as... $675

Priced to SELL!

Volume Profits!

Easy to INSTALL!

the SCAIFAIRE "720"

NEW DYNATHERMIC COOLING ONLY BY TIMKEN-SCAIFE

Here's the new SCAIFAIRE Self-Contained whole home air conditioning that opens the door to new, FULL POWER sales and profits for you. Big extra profits, because it's priced for volume sales. Millions of home owners can now afford the long desired luxury of air conditioning without the luxury price.

COMPLETE LINE of SCAIFAIRE for 1957 also includes new deluxe models of both air and water cooled types in a range of sizes to fit any home requirements. These units are all designed and fashion-styled as companion pieces for Timken-Scaife heating units.

They're ideal for the builders market and lead the way to large volume heating sales too, because they give you the advantages of offering a complete "Heat-Cool" package.

FAST MOVING SIZES to fit the large volume needs of most single family homes. These self-contained units are air cooled, completely factory assembled and wired, ready to operate and carry a 5 year guarantee.

POWERFUL NEW SALES FEATURES

- **New Low Price**
- **Self-Contained**
- **Installed Anywhere**
- **Low Cost Installation**
- **Compact—33¼" x 25¼" x 16½"**
- **Popular range of sizes**
- **Five year guarantee**
- **No running water required**

TIMKEN BUILT BY SCAIFE LABEL OF LEADERSHIP SINCE 1892

GET ABOARD NOW FOR YOUR BIGGEST SEASON EVER WITH THE FAST-SELLING SCAIFAIRE LINE . . . Write today.

another secret of Lennox Success!

LENNOX® Dealers

are more than just "dealers"...

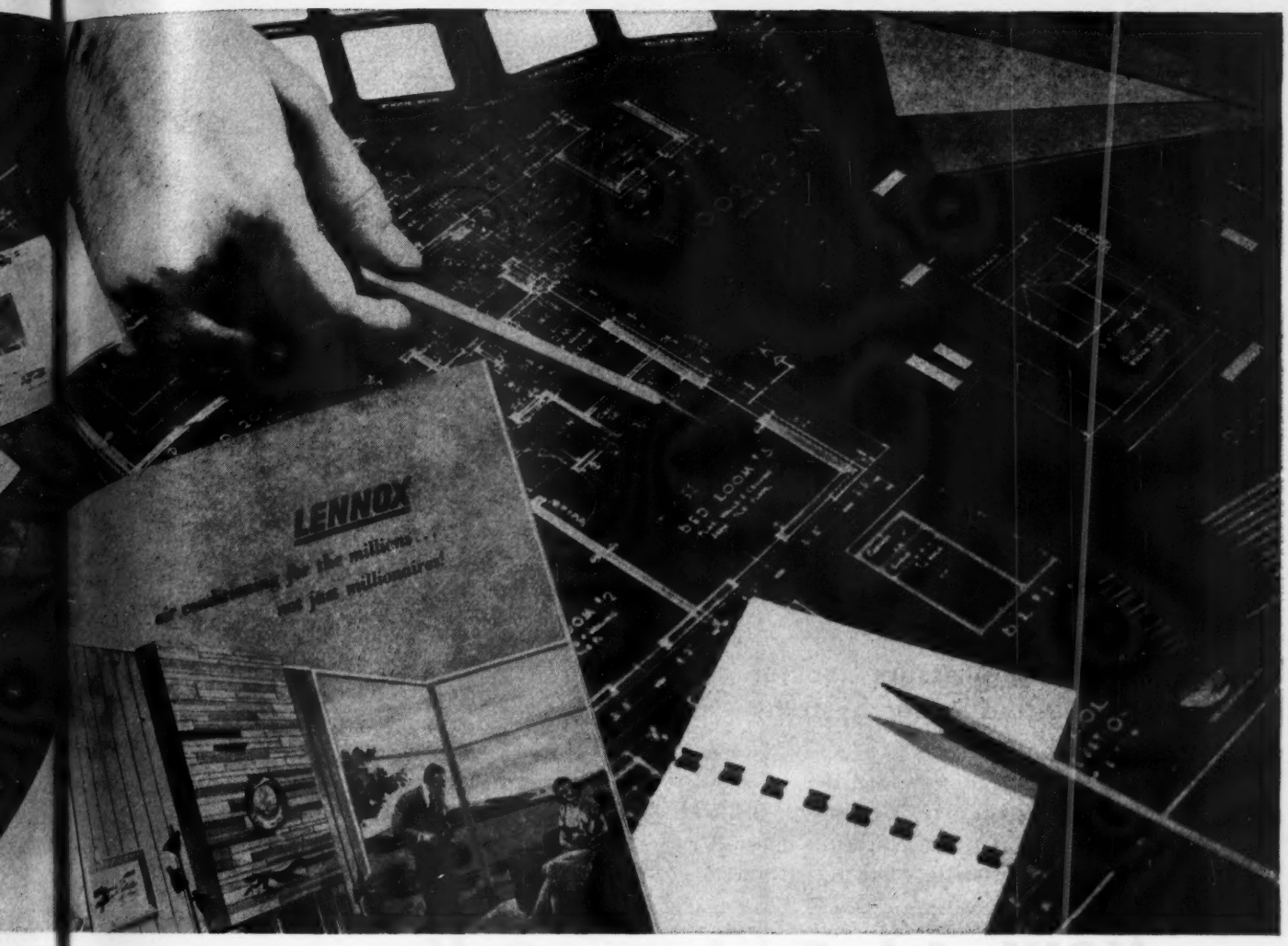
They're Comfort Craftsmen

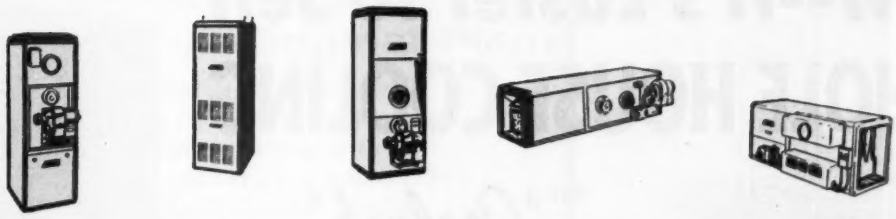
Direct personal relationship with a nearby factory spells the difference—in sales, profit and community standing...

"*Comfort Craftsman*" pretty well describes the Lennox dealer today. For he's not selling just heating or air conditioning systems: he's an *expert* in comfort... the 365-day-a-year kind.

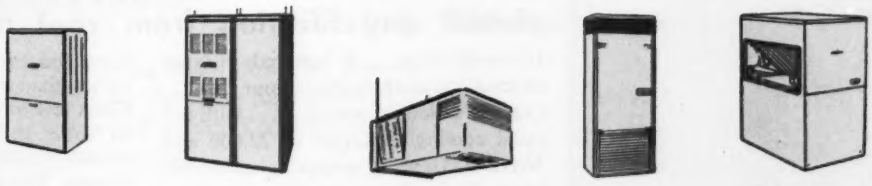
He realizes the old method of buying equipment from middleman distributors or jobbers has gone the way of cookie bins and cracker barrels. Or, in other words, he's in business the modern way—as a merchandiser of comfort.

By dealing direct with a nearby factory, he has access to planning and engineering assistance that is outstanding in the industry. Training schools upgrade his employees ... and he gets extra discounts that BOOST his margin. The equipment he gets—straight from the factory—is designed for faster, easier installation. Lennox is spending hundreds of thousands of dollars this year to tell consumers that the Lennox dealer IS the *Comfort Craftsman* in his community. No wonder he's accepted as "the man to see about home comfort"!





127 MODELS IN THE COMPLETE, FULL-PROFIT
LENNOX HEATING AND AIR CONDITIONING LINE



This shield identifies the Lennox *Comfort Craftsman* as a technician in both the conditioning and distribution of air for comfort the year 'round.

LENNOX Industries Inc.

Established 1895

Marshalltown, Iowa • Columbus, Ohio • Syracuse, N. Y. • Fort Worth, Texas
Salt Lake City, Utah • Los Angeles, Calif. • Decatur, Georgia • Des Moines, Iowa
Lennox Industries (Canada) Ltd. Toronto, Montreal, Calgary and Vancouver

New Products

Each New Products item has an identifying number. If you want more information on any equipment described here send the coupon on page 134 to FUELOIL & OIL HEAT, *2 West 45 St., New York 36, N. Y., and identify the product by circling its number on the coupon.*

Bell & Gossett high pressure booster Pump for circulating water Systems

DESIGNED for in-the-line installation in circulating water systems requiring additional pressure head without additional pumping capacity is a new booster pump of Bell & Gossett called the 1" PR Series. In all capacities under 20 gpm, the new pump is designed to develop greater head than conventional type pumps. Where the capacity requirements are less than ten gallons per minute, 1" PR develops even higher pressures.

The 1" PR Series is well-suited to chilled water systems or combination heating and cooling systems where there is considerable pressure drop through a water chiller, condenser or series of fan-coil units. It is also well adapted to recirculating faucet water systems in the home to make hot water instantly available at all fixtures.

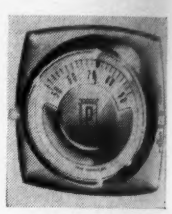
Available in iron or bronze construction, the Series uses the same basic parts found in the standard line of Bell & Gossett horizontal booster, and a 1/6 hp, 1750 rpm BBG motor.

Made by: Bell & Gossett Co., Morton Grove, Ill.

Circle E1 on coupon, page 134

Function of Penn Controls' "Rimset" Thermostat varies with Sub-base used

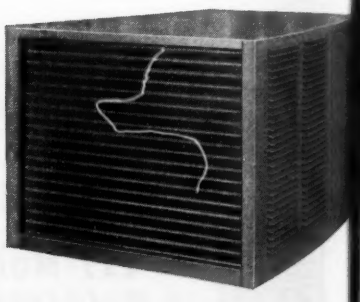
NEW "RIMSET" thermostat of Penn Controls featuring a large, easy-to-read dial is available for either heating or cooling control or both in year 'round airconditioning. The thermostat remains the same for any system variation but sub-base assemblies into which the thermostat plugs provide for the different control functions.



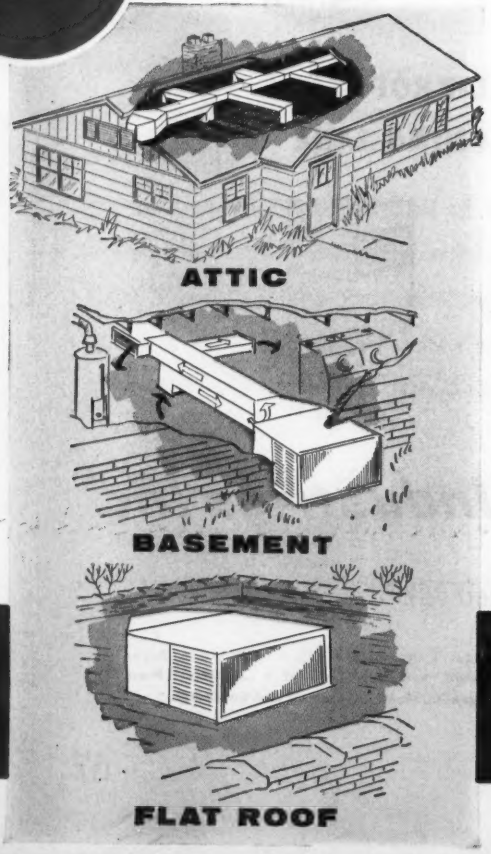
An adjustable heat "anticipator" permits accurate temperature control to within 1° F. with

NOW--It's Easier to Sell WHOLE HOUSE COOLING

INSTALLS ALMOST ANYWHERE



THE "Coolpak" 2 and 3½ H. P.



● **Ideal for homes, stores and offices...suited for almost any location from roof to basement**

It's ready to go... in hundreds of types of installations throughout your area... Century's New "Coolpak"!... with full rated cooling capacities of 22,000 and 36,000 BTU/hr. "Coolpak" gives whole-house cooling from out-of-the-way locations in attic, basement, dormer, hall, crawl space or roof. These versatile units may be tied into existing ductwork or installed with packaged, lightweight Fiberglas duct systems.

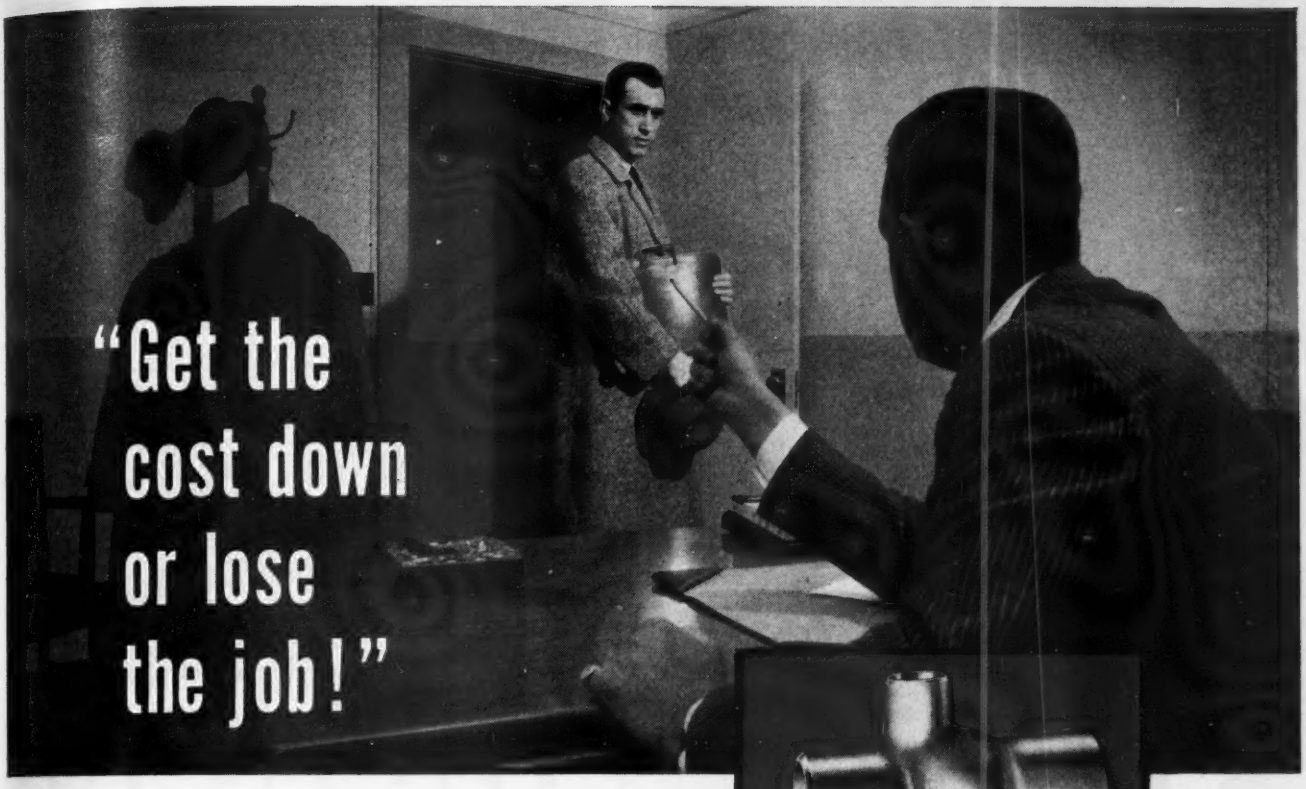
Now you can sell complete air-cooli for less than multiple small-space coole Costs less to operate, too... controll by room thermostat. Has special lo capacity cooling for mild weather co ditions. The cabinet is sound insulat for whisper-quiet performance.

Installation?... It's easy! Only one co nection for refrigerant lines is require Wiring is simple. Get the facts... lea the many other sales advantages of th "Coolpak." Write us today.

YOU CAN COUNT ON CENTURY FOR COMFORT

Century

Dept. 208-B, CEDAR RAPIDS, IOWA



How Taco Super Venturi saved big remodeling job

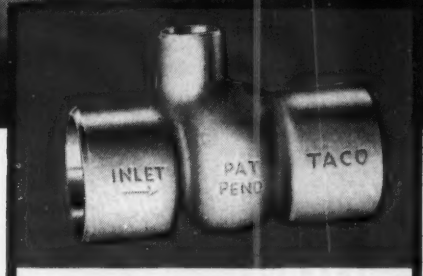
The original plan submitted by Public Coal and Oil Co., Pawtucket, R. I. heating contractor, almost lost them the remodeling of a three-story apartment building. The cost had to be lowered. Here's how it was done:

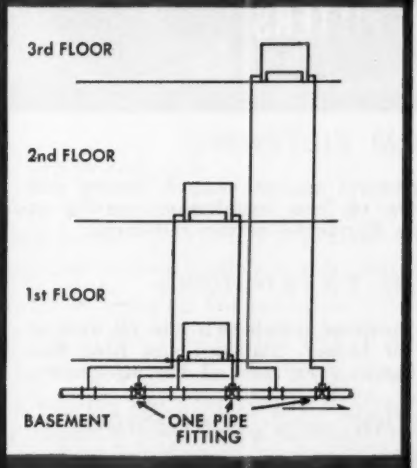
Original Plan ▸

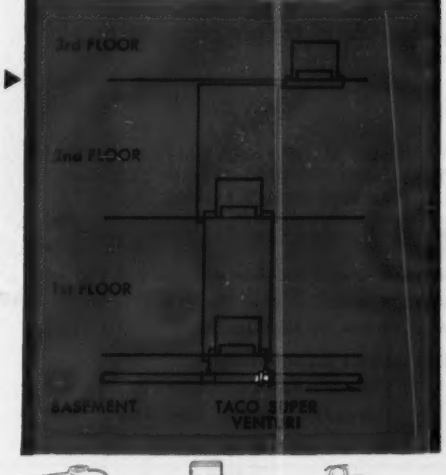
The contractor called in the Taco sales engineer. Working together they found that one Taco Super Venturi Fitting, with its higher capacity, could handle 3 radiators in the same chase. This eliminated running separate risers to all 3 floors and resulted in a substantial saving in labor and better than 50% savings in copper tubing and one pipe fittings! The contractor submitted the Taco plan and got the job.

Taco Plan ▸

Taco engineering know-how and proven products can do the same for you on old or new jobs. Complete Product Technical Data Sheets upon request.







TACO HEATERS INCORPORATED

BETTER HEATING Taco BETTER WITH TACO

1160 CRANSTON STREET
CRANSTON 9, RHODE ISLAND

OTHER TACO QUALITY CONTROLLED PRODUCTS

CIRCULATOR • 170 PUMP • MP PUMP • FLOCHEK • AIR-SCOOP • TACO-VENT • TEMPERING VALVE • HEAT EXCHANGER

Corporate Office: 342 Madison Ave., New York 17, N. Y. In Canada: Taco Heaters of Canada, Ltd., 4 Gilead Place, Toronto 2

BEST POSSIBLE PROTECTION

For ALL Oil Heating Systems

Auto flo
FUEL OIL FILTERS

MAXIMUM FILTERING

Positively protects against clogged nozzles and lines in every oil heat installation, gravity or pressure type. Eliminates service call-backs.

HEXAGON EXTENSIONS

For easiest, quickest installation into oil lines at either tank or burner. Standard and King Size Models to handle every size oil heating system.

RUSTPROOF and LEAKPROOF

One-piece bowl construction, with reinforced bolt spud. Unconditional factory guarantee on all parts.

ALL WOOL FELT CARTRIDGE

Staggered fin design of cartridge provides maximum filtering surface—removes smallest particles, moisture, dirt, scale and foreign matter.

MAIL NOW!

AUTO-FLO CORPORATION
12085 Dixie Street, Detroit, 39 Michigan

Please send me full information on:
☐ Auto-Flo Fuel Oil Filter
☐ Auto-Flo Automatic Humidifier

Name_____

Address_____

City _____ Zone_____ State_____

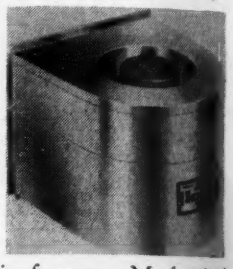
the "Rimset." To change the thermostat setting, the user "dials" the rim to the setting desired while the scale remains stationary.

Made by: Penn Controls, Inc., Goshen, Ind.

Circle E2 on coupon, page 134

Herrmidifier Model 400 controls Humidity and lowers fuel Costs

NEW MODEL 400 Herrmidifier has output of one-half gph, adequate to maintain a relative humidity of 45% to 50% in the average size house. The humidifier minimizes damage to household furnishings caused by insufficient air moisture.



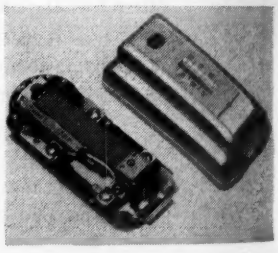
The unit, contained in a stainless steel housing, measures 10¾" wide, 8⅜" high and 11¾" deep and mounts directly on discharge plenum of warm air furnace. Mechanical atomization of water creates vapor within the unit.

Made by: Herrmidifier Co., Neffsville, Pa.

Circle E3 on coupon, page 134

Variable heat Anticipator improves Performance of GE room Thermostats

NOW incorporated as standard equipment on General Electric room thermostats is a variable heat anticipator which causes the thermostat to turn the heating system off before the room temperature is too high and to turn it back on before the temperature dips too low.



One thermostat can be used with all 24-volt oil control circuits ranging from .2 ampere to .8 ampere. A built-in slider on the anticipator is set at the time of installation for the particular heating system control circuit. It can be set to provide an exact cycle time and can be used with GE's outdoor thermostat control.

Made by: General Electric, Schenectady 5, N. Y.

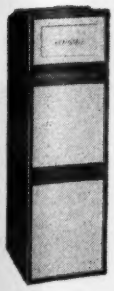
Circle E4 on coupon, page 134

New explosion-proof Switch for Use with Hannay Guidemaster, hose Reels

AN EXPLOSION-PROOF SWITCH has been introduced by Clifford B. Hannay & Son, Inc., for safely controlling Hannay hose reels with electric motor rewind. Compact, lightweight and weathertight, it can be mounted in brackets near or on the reel, or it can be used as a free-cable switch in fueloil delivery. The new switch also is incorporated into the Hannay Guidemaster control for level rewinding of hose.

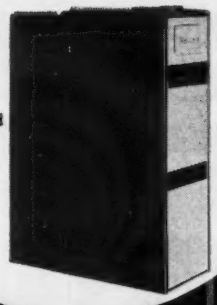
Made by: Clifford B. Hannay & Son, Inc., Westerlo, N. Y.

Circle E5 on coupon, page 134



COMPACT
Winter Air Conditioner
Gas Fired is 26" deep, 54" high.
Oil Fired is 26" deep, 62" high.

ADAPTABLE
Winter Air Conditioner
is shown with matching enameled Return Air Cabinet.

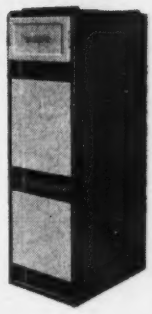


You'll Find

TREMENDOUS ADVANTAGES in the NEW MONCRIEF

Gas Furnaces and Oil Furnaces !

COUNTERFLOW
Winter Air Conditioner
has equal compactness and good looks.



COOLING COIL
can be added with ample space remaining for connection of ducts.

Styled Right...Built Right...Priced Right for 1957 Competition!

Better Looking!

You can see the advantages . . . Totally new, compact design that is original and distinctive! Completely concealed burners and controls! Attractively rounded corners! Rich finish of charcoal and light grey enamel that blends anywhere!

Better Construction!

You can feel the advantages . . . Sturdy, solid, tight construction! The same ruggedness for which Moncrief has been famous for over 60 years!

Lower in Price!

Now, price these advantages . . . Much lower than you would expect for this excellence! Made possible by the greatest investment for tooling in Moncrief's history!

Moncrief invites you to compare . . .

Are you looking for a furnace that will permit you to compete at a cheap furnace price, but will make it possible to actually improve the furnace quality of your installations?

Would you prefer to install a furnace that is completely assembled and wired at the factory, Oil as well as Gas?

Do you want to be able to tell your customers that the furnace you are installing has provision in its design to add the extra blower capacity needed for cooling?

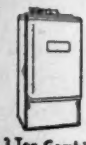
With the totally new Moncrief Gas Fired and Oil Fired Winter Air Conditioners, the answer is a positive *yes.*

See your Moncrief Wholesaler, today!

THE HENRY FURNACE COMPANY • Medina, Ohio

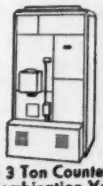
HEATING AND AIR CONDITIONING UNITS — MONCRIEF — FURNACE PIPE AND FITTINGS

It's MONCRIEF for the Complete Line of Air Cooled and Water Cooled Air Conditioning Units

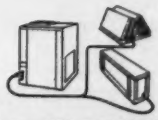


2 or 3 Ton Combination Year 'Round Air Conditioner. Gas or Oil Fired. Air or Water Cooled.

5 Ton Combination Year 'Round Air Conditioner. Gas or Oil Fired. Air or Water Cooled.



2 or 3 Ton Counterflow Combination Year 'Round Unit. Gas or Oil Fired. Air or Water Cooled.



2, 3 or 5 Ton Air Cooled Add-On Summer Air Conditioner. Air Cooled Condenser-Compressor Unit with choice of "V" (Plenum) or "Flat" (Duct) Cooling Coil.

3 or 5 Ton Water Cooled Add-On Summer Air Conditioner shown as installed with Winter Air Conditioner.

fueloil & oilheat

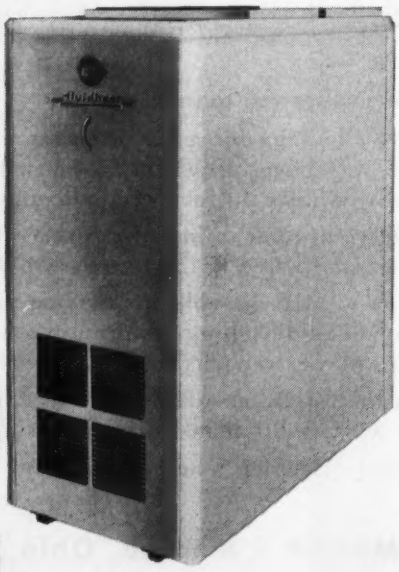
A complete line
of America's finest
heating equipment

QUALITY PRODUCTS
JOHN WOOD
SINCE 1867

fluid heat®
AUTOMATIC HEATING EQUIPMENT

The burner makes the difference

Conversion Burners
Winter Air Conditioners
Hi-Boy and Lo-Boy
Horizontal Furnaces
Gravity Furnaces
Counter-Flow Furnaces
Boilers
Hot Water and Steam
Oil-Fired Automatic Water Heaters
120 gal./hr. recovery
PLUS
Rotary Wall Flame Conversion Burners, Furnaces, Boilers
Hot Water and Steam

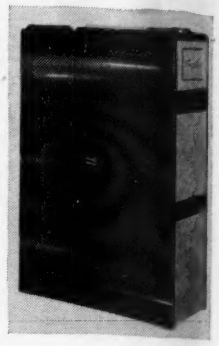


A broad line of quality equipment for oil and gas firing. Get full details today.

fluid heat HEATING — JOHN WOOD QUALITY PRODUCTS SINCE 1857 — fluid aire COOLING
JOHN WOOD COMPANY
Heater and Tank Division
Conshohocken, Pa. • Chicago, Ill. • Red Oak, Ia.

Olsen's Luxaire oilfired winter airconditioning Unit more compact

A LUXAIRE oilfired winter airconditioning unit features greater compactness for wider choice of installation placement. Models are approved for close clearance installation on both sides and rear for small closet or utility room installations. Provision is made for the addition of extra blower capacity which may be needed when a cooling coil is installed later.



Units are shipped completely assembled and wired with gun-type oilburner and refractory firebox installed. Available now with a capacity of 78,400 Btu at bonnet, models with a capacity of 100,000 Btu at bonnet will be ready soon.

Made by: C. A. Olsen Manufacturing Co., Elyria, Ohio.

Circle E6 on coupon, page 134

Esso Paradyne fueloil Additive for better burner Performance

PARADYNE-HO-4 fueloil additive, developed by Esso, replaces its former detergent additive. Designed to improve home heating oil quality and better oilheating system performance, Paradyne prevents formation of sediment that causes filter and nozzle plugging.

In addition, the additive is described as ashless and incapable of picking up water. Esso researchers say that the additive not only resists emulsification with water, but that if water vapors should become mixed with oil, the additive causes the oil virtually to shed the water.

Made by: Esso Standard Oil Co., 30 Rockefeller Plaza, New York 20, N. Y.

Circle E7 on coupon, page 134

Stewart Hall aerosol de-greaser, ZIPP, quickly cleans motor Parts

AN AEROSOL de-greaser called ZIPP is being marketed by Stewart-Hall for use by heating men to remove such grease, oil, carbon and tar from electrodes, pumps, motors and all types of electrical and mechanical parts.

ZIPP is sprayed on the area to be cleaned. Within a minute the object can be wiped clean with a rag or, if not electrical, can be rinsed clean under water. The de-greaser is non-corrosive and non-flammable and is safe for painted surfaces. It dries rapidly leaving no film or vapor and will not short electrical equipment.

Made by: Stewart-Hall Chemical Corp., P. O. Box 66N-5, Mount Vernon, N. Y.

Circle E8 on coupon, page 134

Every *Monarch* Nozzle is INDIVIDUALLY OIL TESTED . . .

this means . . . .

Monarch completely eliminates the need to "try out" several nozzles to find one that fires properly. *Individual* testing of *each* Monarch Nozzle, on Oil, is your guarantee of absolutely uniform performance.

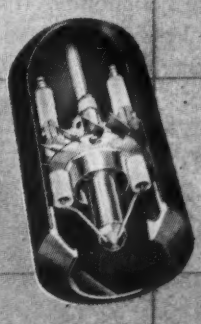
Every Monarch Nozzle is a precision product, 100% Tested for Capacity, Spray Angle, Quality of Spray and Balance.

No wonder Service Men and more than 400 Oil Burner and Furnace manufacturers using Monarch Nozzles as original equipment agree . . . Monarch continues "First Choice of the Industry"!

DEALERS: Buy from your Monarch Jobber. Write for Catalog "O"

Monarch MANUFACTURING WORKS, Inc.
2503 E. ONTARIO ST., PHILADELPHIA 34, PA.
Canadian Agent (Except B. C.)
E. S. Gallagher Sales Ltd., Toronto 12, Canada
Exclusive Agents in all of Europe, Australia and New Zealand

Monarch **AIR MIXING EQUIPMENT...**



COMBUSTION HEADS: G-81-C Head is as easy to install as an ordinary Air Cone and Stabilizer. Produces high CO_2 with no "adjustments" to get out of order. For 3⅞" or 4" I. D. Air Tubes.

CONVENTIONAL: Bladed Cone Rings and four blade Stabilizers for ordinary Air Tube replacement from 3½" to 8" I. D. Also special "Anti-Pulsation" equipment.

Also available: Flame Mirrors, 24 and 48 Nozzle Boxes, Nozzle Wrenches, etc.

REMEMBER: It costs more to clean a defective nozzle than to replace with a new, precision, guaranteed-uniform Monarch Nozzle.

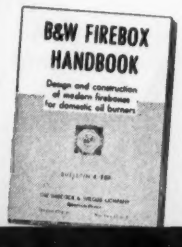
When converting fireboxes

Sell the Difference in Dollars

You can make money and save your customers money, too, when you put across the B&W Insulating Firebrick story. Here's why:

Fireboxes lined with lightweight B&W Insulating Firebrick can save 15% to 25% in fuel bills. The reason? Millions of tiny insulating air cells stop the flow of heat through the brick . . . bounce the heat back into the firebox. The hot face of these lightweight refractories come up to temperature faster on start-up, then keep furnace temperature higher during firing. That not only cuts fuel costs, but also assures more complete combustion and clean, odorless heat.

These B&W benefits will keep selling for you because your satisfied customers will spread the word to neighbors. Your oil sales will go up . . . and so will your reputation in the community. It's smart business to explain the difference in dollars with B&W Insulating Firebrick.



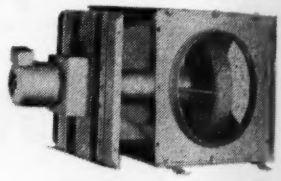
A Valuable Guide for Every Installer

Send today for this Handbook!

THE BABCOCK & WILCOX CO.
Refractories Division
General Offices: 161 East 42nd St., New York 17, N. Y.
Works: Augusta, Ga.

Wing draft Inducer for residential and small commercial heating Plants

A SMALLER MODEL, Size 10-D, of the Wing draft inducer has been designed for domestic and small commercial heating plants with a capacity of 4½ gph. Like the larger sizes, Model 10-D provides adequate draft at all times regardless of wind or weather.



It eliminates the need for tall chimneys or stacks and may be mounted horizontally or vertically in the breeching. Motor and fan assembly are in one unit which is easily withdrawn from the casing for inspection or servicing. Bearings are air-cooled and fan needs no lubrication.

Made by: L. J. Wing Manufacturing Co., Linden, N. J.

Circle E9 on coupon, page 134

McLarty booster Fans make possible "Basement System" of home Cooling

A LOW COST, easily-installed basement system of home air-conditioning is possible by use of McLarty residential booster fans. The fans distribute cool air to floors above from window airconditioning units installed in basement windows. Where a forced warm air furnace is installed, the blower compartment door is removed from the furnace causing the blowers to circulate basement air.

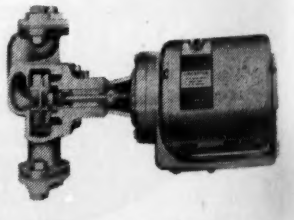
In radiator heated homes, the cool air from the window units drops directly into the open basement, where it spreads out and may be picked up at any point and pushed upstairs by McLarty fans. Distributing units usually are six feet of 12-inch square or round pipe with a No. 1224 ten-inch fan located in about the center of the duct and blowing up. After a suitable box header is put in where the air will come up, the pipe is hung to the basement wall about one foot above the floor. Installation of airconditioning units in the basement not only provide a quiet system but also serve to dehumidify the basement preventing mold and moisture formation.

Made by: McLarty Systems, Battle Creek, Mich.

Circle E10 on coupon, page 134

Taco Heaters design Circulator No. 112 for combination heating-cooling Units

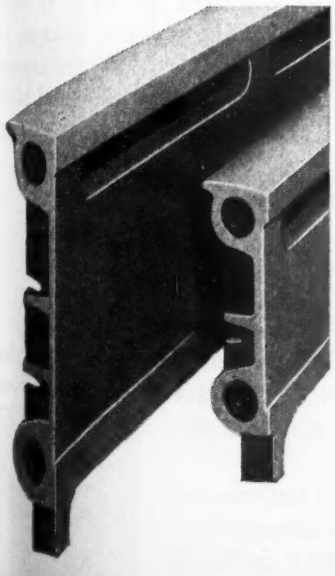
CIRCULATOR NO. 112 has been designed by Taco Heaters especially for combination heating-cooling unit installations. Featuring quiet operation and low cost, the circulator has mechanical seals, spring drive coupling, enclosed impeller, rubber-mounted motor, overload protection and high head, up to 23 feet. It is equipped with a 3450 rpm motor.



Made by: Taco Heaters, Inc., Cranston, R. I.

Circle E11 on coupon, page 134

EVERYTHING TO TALK ABOUT



When you're selling baseboard heating, Weil-McLain Snug Radiant Cast Iron Panels really give you something to talk about. These are *Extra Value* baseboards, with *quality* features which make satisfied customers.

Consider the exclusive advantages of cast iron construction. Your customer gets more *radiant* heat...*sustained* heat that only a cast iron unit with large waterways can provide. Plus uniform temperature from floor to ceiling and gentle, convected air movement which doesn't pick up dirt to streak the walls.

In design, Weil-McLain Baseboards conform with modern styling ...crisp and clean-lined—easy to clean. Matched metal extensions permit complete coverage of the wall—two heights meet all heating requirements.

Ideal for modernizing, too, because Weil-McLain Cast Iron Baseboards can be installed one room at a time, without disturbing system balance.

Get *all* the facts—send today for literature.

WEIL-McLAIN

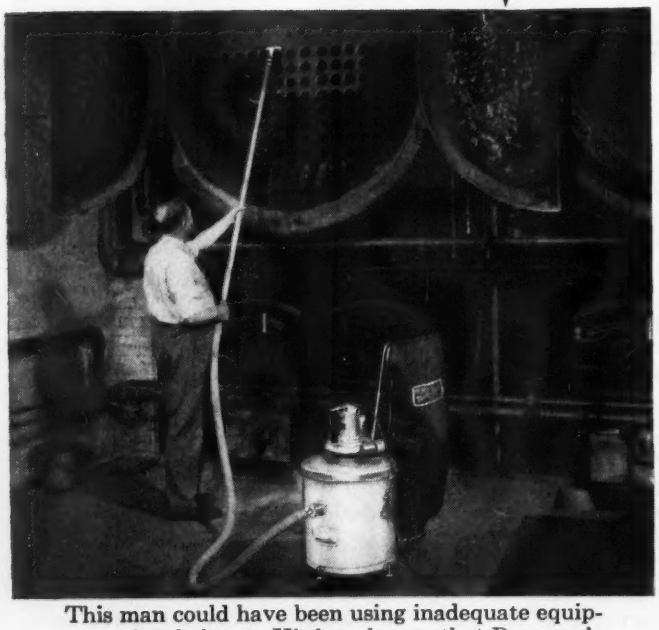
WEIL-McLAIN BOILERS · RADIATORS

SNUG RADIANT BASEBOARD PANELS

WEIL-McLAIN COMPANY · Dept. B-47, Michigan City, Indiana

fueloil & oilheat

every furnace, boiler, and air conditioning cleaning problem answered by PREMIER



This man could have been using inadequate equipment, but he's not. His boss knows that PREMIER's *complete line* of vacuums and tools is designed to satisfy the needs of any cleaning operation efficiently and economically.

Why not let PREMIER *help you in your job? Send for* **free** *details today!*

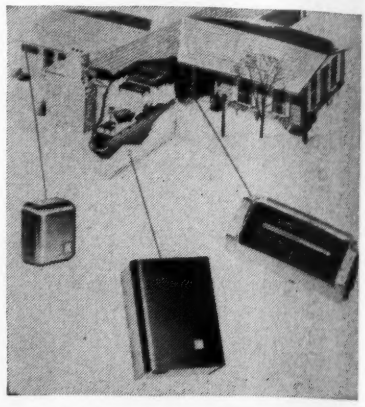
Gordon L. Bowman, General Sales Manager
The PREMIER Company, Dept. 504
755 Woodlawn Ave., St. Paul 1, Minnesota • MIdway 9-7002
35 Gerrard St. West, Toronto 2, Canada

Please rush me *free* details on PREMIER furnace, boiler, and air conditioning cleaning equipment and FREE information on how I can cut maintenance costs by choosing the right machine for *my* job!

Name_____
Address_____
City_____ State_____

Weather Minder control System adjusts indoor Temperature to outdoor Weather

WEATHER MINDER, Detroit Controls new indoor-outdoor temperature control system, automatically adjusts indoor temperatures in accordance with outdoor weather conditions. Important elements of the system are thermally-sensitive resistors known as thermistors. Mounted outside the home, the thermistor unit signals temperature changes to the control panel that serves as a central control between the room thermostat, the thermistor outdoor unit and the heating equipment.



The system is inexpensive, simple to install, completely automatic and requires no adjustments. It comes complete with the CA-407 outdoor thermistor unit, the CA-290 control panel and the CA-406 Weather Minder thermostat.

Made by: Detroit Controls Corp., 5900 Trumbull Ave., Detroit, Mich.

Circle E12 on coupon, page 134

Markal "D-A" Coatings protect Metals against corrosive Agents

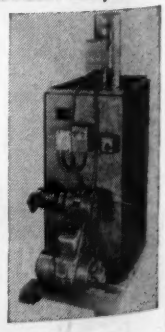
NEW ADDITION to Markal heat-proof coatings is Markal "D-A" coating for use on metals as protection against hot acids, mild alkalies, acid fumes, salt spray, steam and other corrosive conditions up to 600° F. It may be brushed or sprayed on the surface to be treated. Surface should be no hotter than 200° F. when treated and 48 to 72 hours should be allowed for drying. Markal "D-A" coating for mild corrosive conditions and Markal "D-A-8" for extreme corrosive conditions are available in ivory, gray and black.

Made by: Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.

Circle E13 on coupon, page 134

New Yorker Steel Boiler introduces factory-assembled Uni Pac Boiler

THE FACTORY-ASSEMBLED, pre-wired Uni Pac boiler has been introduced by New Yorker Steel Boiler. Easy access to the unit permits servicing and cleaning in minutes.



It is ASME constructed and stamped and guaranteed by the manufacturer for five years. The boiler is packaged on a skid and protected by a heavy shipping container.

Made by: New Yorker Steel Boiler Co., Inc., Colmar, Pa.

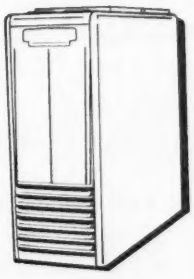
Circle E14 on coupon, page 134

SELL TODAY'S QUALITY BUYER

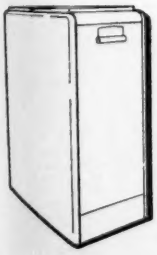
WITH

HEIL

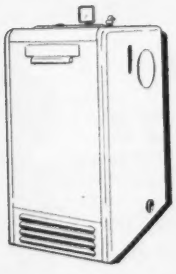
...the FOUR-most heating and cooling line!



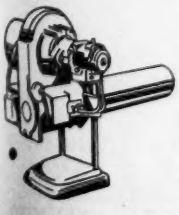
13 Oil-Fired Winter Air Conditioners (BTU range: 84,000 to 224,000)



12 Summer Air Conditioners (Cooling Capacities: 24,000 to 36,000) (Water and Air Cooled Units Available)



6 Oil-Fired Boiler-Burner Units (BTU range: 93,000 to 252,000)



4 Oil Conversion Burners (GPH Capacities: 0.50 to 6.00)

Today's customer wants a "good deal"—and that means you have to offer more than a price. You have an advantage selling Heil because you can offer more. For example:

1 2 3 4

PRODUCT

Unmistakably superior quality is engineered into each Heil unit—*and* Heil production craftsmen painstakingly match each component for matchless efficiency, dependability and durability.

NAME

The familiar Heil Co. name enjoys a reputation for quality with your customers.

STYLING

Heil styling is second to none. In design and color, Heil units "fit" the job, please the home-owner.

MARKETING

Heil Co's. marketing policies of fair dealing and generous co-operation have won friends across the country. Our new plans to help you sell continue those policies, and include *new* selling tools for additional profit.

We invite you to write for information on how to sell *more* than price, with Heil.

THE HEIL CO.

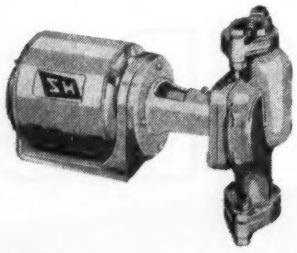
3083 W. Montana St. • Milwaukee, Wis. • Hillside, New Jersey

SALES OFFICES: Union, N.J.; Atlanta, Ga.; Cleveland, Ohio; Chicago, Ill.; Milwaukee, Wis.; Kansas City, Mo.; Denver, Colo.; Dallas, Texas; Los Angeles, Calif.; Seattle, Wash.

OHI

Sid Harvey adds low-priced hot water Circulator to replacement parts Line

A LOW-PRICED hot water circulator has been added to the Sid Harvey line of replacement parts for oilburners. It is of 1½ inch size with interchangeable flanges for use on ¾", 1", 1¼" and 1½" applications. The horizontal-mounted ⅛ hp GE motor is vibration free. The impeller is balanced cast-iron with stainless steel shaft and spring type coupling. The circulator may be mounted on vertical or horizontal pipe by changing four bolts.



Made by: Sid Harvey, Inc., Valley Stream, N. Y.

Circle E15 on coupon, page 134

RCA develops pocket-size FM radio Receiver for mobile Communications

A POCKET-SIZE frequency modulation radio receiver for mobile communication service has been introduced by Radio Corporation of America to provide extensions of several miles for radio systems now operating on the 150-megacycle band.

Fully transistorized and featuring printed circuitry, the pocket-size double superheterodyne FM receiver incorporates its own antenna and loudspeaker and can be directly contacted by the sending station without additional equipment. It measures only 2¾" wide, 1" thick and 6½" high, weighs about 10 ounces and operates on a fraction of a watt of power from self-contained, flashlight-type, mercury batteries.

The micro-miniature receiver is the forerunner of a complete line of RCA personalized receivers and transmitters for commercial communications in the three commercial two-way radio bands, 50, 150 and 450 megacycles.

Made by: Radio Corp. of America, New York, N. Y.

Circle E16 on coupon, page 134

Holub snap-On metal Straps permit faster pipe, conduit Installations

A METAL STRAP that "snaps on" pipe, rigid and thinwall conduit is announced by Holub Industries as a means to neater, faster installations. Since it can't drop off, it is good for overhead work or hard-to-reach jobs. Secret of the "snap" is a bump inside the strap.

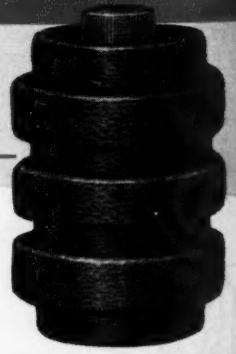
As the strap is pressed on, the bump causes a slight springing action which holds the strap firmly in place. Of heavy gauge, zinc-plated steel, "Snap-On" straps are available in six sizes from ½" to 2" for thinwall conduit, and seven sizes from ⅜" to 2" for rigid conduit and pipe.

Made by: Holub Industries, Inc., Sycamore, Ill.

Circle E17 on coupon, page 134

Operation Oilburner Overhaul:
TIME TO INSTALL A GF REFILL* IN EVERY FILTER YOU SERVICE!

*Make Sure it's a Genuine Wool Felt GENERAL FILTERS CARTRIDGE



• WHILE YOU ARE CLEANING AND ADJUSTING oil burner parts and controls for *next* heating season, make the job complete: *change the filter cartridge.* The increased heating efficiency and fuel savings your customers will enjoy will more than pay for a GF refill!

You provide *lasting* burner protection — and cleaner-burning fuel oil — with a WOOL FELT General Replacement Cartridge because it traps BOTH moisture and dirt particles including all lint. And there are NO sticky fibres to clog nozzles! Get the GF habit . . . earn up to $1 for five minutes of your time!

"STEP BACK" DESIGN
1 MORE = FILTERING 3 AREA
FITS MOST MAKES
PATENTED LINT REMOVAL

ANY FILTER WORKS BETTER WITH A GF REFILL

HERE'S A SERVICE TIP:

Pre-season service calls are the logical time to clean out soot-packed flues. Take along a can of CLEAN RIGHT Soot Remover. It works in 2-5 minutes! To complete the job, suggest a GENERAL HUMIDIFIER for real heating comfort and protection of walls, floors and furnishings.

GENERAL FILTERS, INC. 42500 GRAND RIVER AVE. NOVI, MICHIGAN
IN CANADA: Canadian General Filters, Ltd., 38 Crockford Blvd., Scarborough, Ontario

bryant *is going "all out" in '57*

to boost BRYANT DEALERS' business!

BRYANT'S out to tell the world about its 50 years of leadership in residential heating, air conditioning and water heating!

Prestige-winning national advertising in full color spearheads the campaign, with merchandising aids galore. A hard-selling campaign at the local level follows. Get on the band-wagon!

FOR '57

4-color 2-page spread in **Better Homes and Gardens**

4,200,000 circulation! . . . . . **20,000,000 readership!**

FOR '57

Full color pages in **American Weekly, This Week, Parade,** and **Local Supplements**

29,719,687 circulation!. . . . . **140,000,000 readership!**

FOR '57

4-color pages in **New Homes Guide, Home Modernizing, House Beautiful's Building Manual, House & Garden's Book of Building**

13,000,000 circulation! . . . . . **30,000,000 readership!**

June 1-30, details top secret until later!

TERRIFIC SURPRISE CAMPAIGN

At the LOCAL LEVEL—wait and see!

Readership in the billions!

50th ANNIVERSARY 1907-1957

bryant

© 1957, Bryant Manufacturing Company, Indianapolis, Indiana
Bryant Manufacturing, Ltd., Toronto, Canada

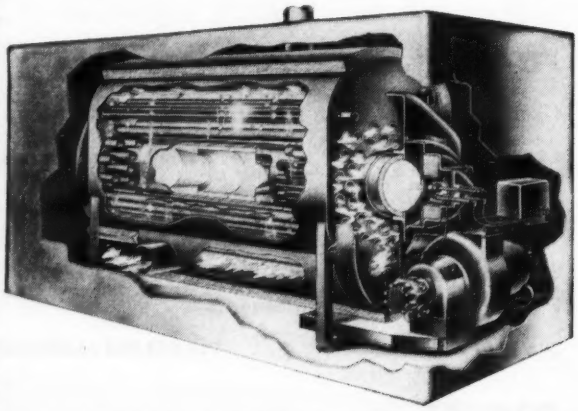
BRYANT . . . America's Foremost Specialists in Residential Heating, Cooling and Water Heating

fueloil & oilheat

SELL

THE BETHLEHEM DYNATHERM

. . . the fastest growing name in oil burning package units!



- EXCEEDS CUSTOMERS' EXPECTATIONS — gives them more for their money in fuel economy, convenience and comfort than they have ever known before, regardless of what heating system was used!
- FUEL SAVINGS OF MORE THAN 40% ARE COMMON — one reason why it pays for itself in 5 years!
- COMES COMPLETELY ASSEMBLED AND TESTED AT THE FACTORY—thereby reducing installation cost, and assuring dependable, uninterrupted service!
- ALL THE DOMESTIC HOT WATER YOUR CUSTOMERS NEED—the year 'round, at the lowest possible cost!
- BACKED BY A 100-YEAR-OLD FIRM!
- ASSURES BIG PROFITS FOR YOU!

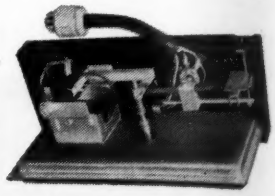
If you've been losing sales . . . why not get started selling this outstanding Package Unit with many exclusive features . . . that offers everything your customers have been looking for in Healthful Heating! Wire or write immediately for full information!

BETHLEHEM FOUNDRY & MACHINE COMPANY

BETHLEHEM, PENNSYLVANIA, U.S.A.

Cleveland Proportional band Unit stabilizes draft control Systems

AN ADJUSTABLE proportional band has been designed by Cleveland engineers to eliminate instability and "hunting" by automatic draft control systems in commercial and small industrial power plants.



Fluctuations and pulsations of the furnace are filtered out of the control system by the proportional band. This allows the actuator to establish a defiinte damper position corresponding to any given firing rate. A steady predetermined over-fire draft condition (either positive or negative pressure) is thus maintained by the unit.

Heart of the unit is a flat beryllium spring, one end of which is attached to the diaphragm assembly so that it opposes the force exerted by the furnace pressure. By varying the force which the spring exerts on the diaphragm, it is possible to select a set point for operation over the entire range of the control.

Made by: Cleveland Fuel Equipment Co., 1111 Brookpard Rd., Cleveland 9, Ohio.

Circle E18 on coupon, page 134

Thermo-Base Baseboards in 3, 5 and 8 foot lengths; boast decorator-Styling

THE BASEBOARD DESIGN of Gerwin's Thermo-Base warm air baseboard has been simplified and decorator-styled to give greater eye-appeal to this perimeter distribution system. Thermo base is available in 3, 5 and 8 foot lengths. A plenum, or conversion chamber, in the upper portion of the unit above the outlets is said to give end-to-end distribution. The Thermo-Base design is credited also with a "side throw" action to blanket outside wall areas.

Made by: Gerwin Industries, Inc., Michigan City, Ind.

Circle E19 on coupon, page 134

Plexiglas filler Panel spurs Sale of Airtemp room Airconditioners

OVERCOMING objections of potential customers for room airconditioners that installation of the units with their metal or fiberboard filler panels would black out too much window and darken the room, Chrysler Airtemp distributor, the Wilson Supply Co., Washington, D. C., now offers filler panels made of clear, transparent Plexiglas, an acrylic plastic manufactured by the Rohm & Haas Co. of Philadelphia, Pa.

With the Plexiglas panel, about 2 square feet of window area is reclaimed. The panels are easily installed since the material can be sawed and drilled like wood. The plastic is shatter-resistant, withstands any sort of weather, will not discolor with age and can be washed with plain soap and water.

Made by: Rohm & Haas Co., Philadelphia, Pa.

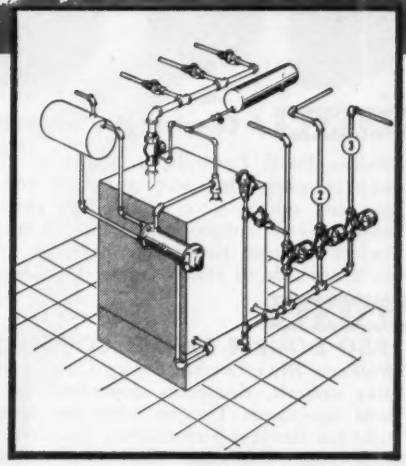
Circle E20 on coupon, page 134

THRUSH

Flow Control Valve

Horizontal Thrush Flow Control Valves save head room, save pipe, save labor and simplify zoning hot water heat. With the new two inch valve just introduced, a complete range of Horizontal Flow Control Valves for all zoning requirements, 1", 1¼", 1½" and 2" is now available.

These valves operate only when the Thrush Circulator creates sufficient pressure head to open them. They close automatically when Circulator stops, preventing wasteful overheating. Adjusting lever permits manual operation for gravity circulation or for draining the system.



A TYPICAL THRUSH ZONED SYSTEM of Hot Water Heat

Three zones are illustrated, using Horizontal Thrush Flow Control Valves. As many more zones and units may be added as are needed. Vertical Thrush Flow Control Valve with air tube is used in the boiler.

simplifies zoning of HOT WATER HEAT

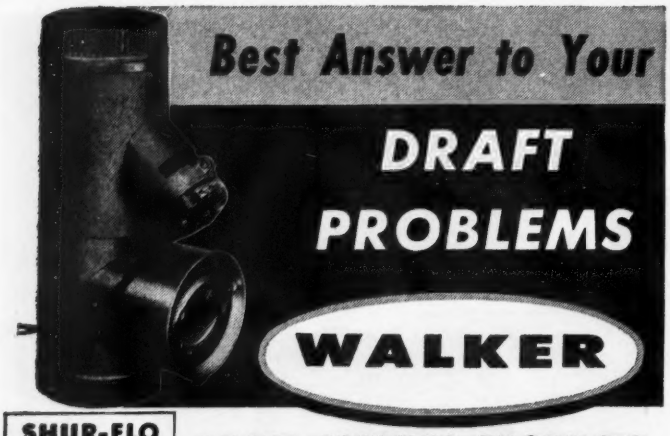
Each zone requires just three simple units, a Circulator, a Flow Control Valve and a Thrush Radiant Heat Control to provide accurate control of temperature in each area automatically. They are inexpensive and easy to install . . . and you give your customer a better job if you standardize on genuine Thrush units for zone control.

See your wholesaler, or write Dept. C-4

Thrush Water Circulator

Thrush Radiant Heat Control

H. A. THRUSH & COMPANY
PERU • INDIANA

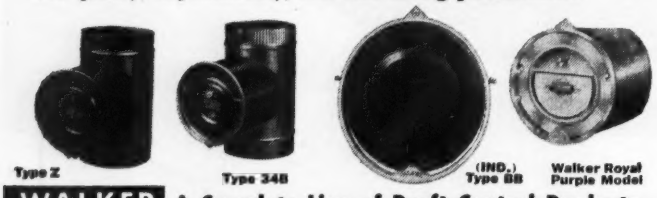


SHUR-FLO draft inducer to correct for lack of natural draft.

DRAFT CONTROL PRODUCTS

Automatic Draft Controls

When it comes time to recommend, specify, buy or install draft control equipment for small space heaters or your biggest commercial installation, look first to Walker, world's largest factory devoted exclusively to the manufacture of automatic draft controls. Over 25,000,000 now sold for coal, oil, and gas prove Walker Controls are the best you can buy for quality, dependability, and fuel-saving performance.



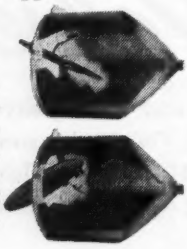
WALKER A Complete Line of Draft Control Products

Walker Draft Controls, available in 3" to 48" sizes, help keep chimneys dry, stop pulsation and smoking, eliminate soot and odors; give trouble-free performance even under most adverse conditions. Walker Controls are made with perfect balance. Knife-edge bearings are incorporated into the inner side of sturdy frame. Underwriter Approved.

WALKER

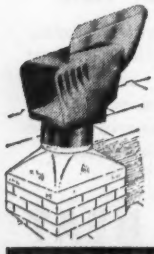
BBG DOUBLE SWING CONTROL

Walker's BBG Double Swing Control regulates updraft, dissipates downdraft in gas-fired equipment. Unique relief bar arrangement for flawless performance. Stainless steel knife-edge bearings. Corrosion resistant. Long, heavy gauge collar holds the draft control safely out of the flue gas stream.



WALKER

VENTURI-TOP CHIMNEY TOP



For heating (gas, oil, or coal) and ventilating. Directional vane keeps throat facing wind. Sloping-throat prevents back drafts, intensifies air flow over chimney opening for maximum draft effectiveness. Unit rotates on friction-free, hardened-steel ball bearing.

WALKER *30 Years of Draft Control Experience!*

WALKER MFG. & SALES CORP.

1750 Penn Street, St. Joseph, Mo.

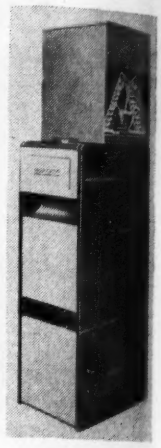
MAIL COUPON FOR COMPLETE DETAILS TODAY!

WALKER MFG. & SALES CORP., 1750 Penn Street, St. Joseph, Mo.
Please rush me information on the Walker items checked.
- ☐ Automatic Draft Regulators for small installations
- ☐ Industrial draft regulators for schools, buildings, plants
- ☐ Walker SHUR-FLO Draft Inducer
- ☐ Royal Purple Draft Controls for Home Heating
- ☐ Venturi Top Chimney Cap

NAME_____
ADDRESS_____
CITY_____ STATE_____

Moncrief oilburning Furnace provides for later Addition of cooling Coil

PROVISION for later addition of the higher air delivery needed to operate a summer airconditioning cooling coil is made in the design of the new Moncrief oilburning winter airconditioners now being marketed in a model of 78,400 Btu at bonnet capacity. Another size, with approximately 100,000 Btu at bonnet, will be announced at a later date.



The furnace is shipped with oilburner and refractory firebox installed and with burner circuit wiring complete. Cabinets of exceptional rigidity are heavily constructed with unbroken side and rear panels and rounded corners.

Made by: Henry Furnace Co., Medina, Ohio.

Circle E21 on coupon, page 134

General Automatic De-Airator Tank keeps Air from hot water Systems

ELIMINATION of air blocks in hot water heating systems is the function of General automatic dual De-Airator tank designed to trap and prevent air from getting into the system and assure a steady flow of water at full rated capacity.

When demands are made upon the system for more heat, the De-Airator tank provides a gradual build-up, minimizing shock and expansion noises. The tank prevents air clogging and makes air vents unnecessary. It is equipped with an automatic pressure reducing and relief valve and with two key air vents. All pipe tappings are 1¼". Tank sizes are 24", 36" or 48" x 12".

Made by: General Automatic Products Corp., Baltimore, Md.

Circle E22 on coupon, page 134

Trion air Cleaner line features wider Range, greater Flexibility

A NEW LINE of Trion electronic air cleaners features a greater range of air volume for use with any size of residential or small commercial heating or airconditioning unit, and greater flexibility in installation due to inclusion of two units, for vertical air flow. Also featured is a remotely located power pack, wall-mounted for convenient instrument reading and switch operation.

The Trion electronic air cleaner is installed in the return air duct of an airconditioning or warm air heating system. Dirt that is drawn into the return air duct becomes electronically charged as it enters the Trion. These charged particles then are attracted to grounded plates over which the air must pass.

Made by: Trion, Inc., 1000 Island Ave., McKees Rocks, Pa.

Circle E23 on coupon, page 134

He wouldn't be guilty of leaving fingerprints!

The hands that go into these goatskin gloves belong to a skilled worker in General Electric's new Tyler, Texas plant where whole-house air conditioning equipment is built.

The reason for the goatskin gloves? Even the barely perceptible perspiration that forms on human fingers would have an adverse effect on the compressors which are the heart of General Electric central system air conditioning. In any necessary handling before the compressor is factory-sealed for protection, goatskin gloves are worn.

This is an extra step we take – one of the many ways we safeguard the quality of our products. And this quality control, standard practice at Tyler, Texas, is far-reaching in its effects. Wherever you may install General Electric Home Heating and Cooling systems it is your assurance of the kind of user satisfaction that means customer good will and continued profits. General Electric Home Heating and Cooling Dept., Tyler, Texas.

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These books will help you service your accounts profitably and efficiently.

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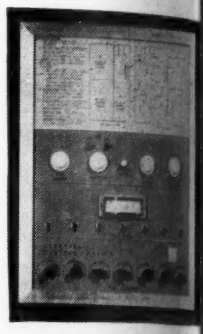
A CENTRAL control panel developed by Minneapolis-Honeywell for small commercial or industrial buildings makes possible the application of advanced automation techniques in comfort control by untrained, non-technical personnel. The midget "supervisory centers" will be custom-built by Minneapolis-Honeywell for establishments large enough to have multiple temperature control areas but too small to employ an operating engineer.



Dials, switches and pilots lights permit a person with no technical training in the operation of a heating-cooling-ventilating system to keep it at peak efficiency, maintain maximum comfort in various zones of the building and keep tabs on what's happening without giving it full-time attention. One light even shows when dirty filters should be replaced. Each control is numbered and explained in instructions printed on the panel. Size of the units depends on the number of control zones and pieces of equipment to be controlled.

Made by: Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

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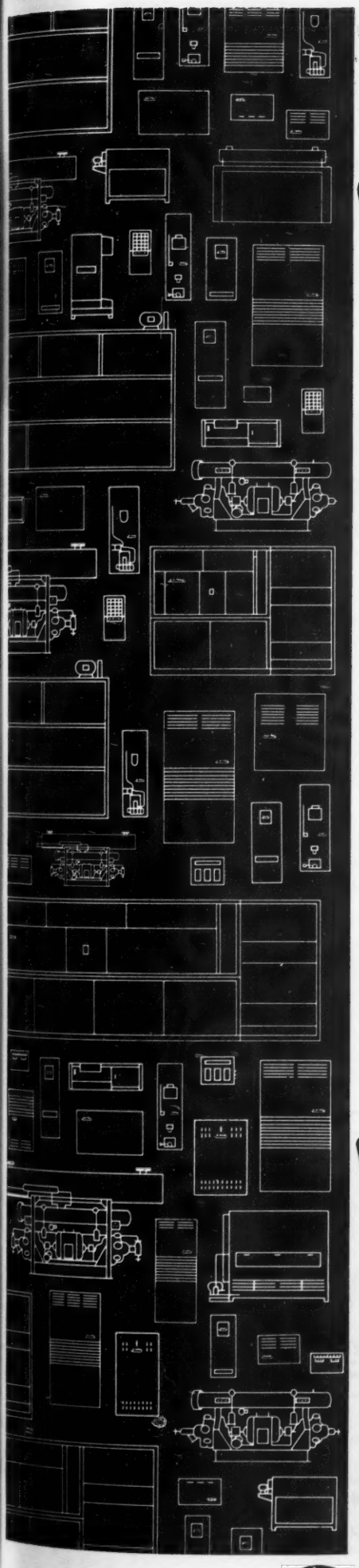

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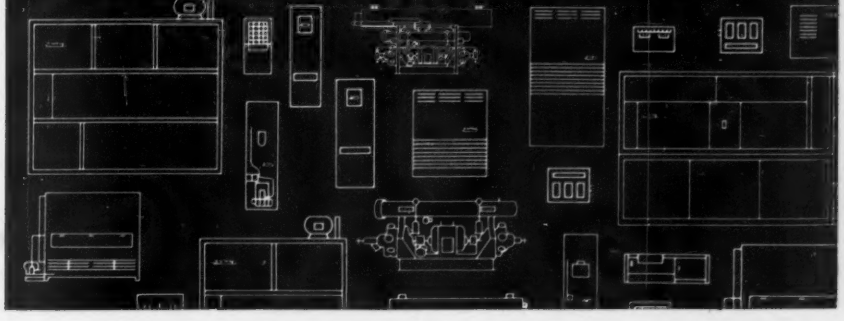
Airtemp DIVISION CHRYSLER CORP offers a **greater** selection of air conditioning equipment...**286** models

...38 of which are furnaces



Readers' Problems

Q. Is there anything wrong with the idea of wiring the solenoid shut-off valve of a horizontal-rotary burner in parallel with the starting switch of the split-phase motor of the burner to obtain a delay of fueloil when the burner starts up?

F. J. W., Washington, D. C.

A. No. The idea works and has been used often. It leaves much to be desired in not giving sufficient time lag to amount to anything, however, because a healthy motor comes up to speed and opens its starting switch in a matter of a few seconds.

Certain burners using residual oils work best so arranged that their solenoid shut-off valves open 15 or 30 seconds after their motors start. If you aim for that kind of operation, install controls that really give the delayed-oil feature.

Q. No. 1: How can you tell if improving the operation of a 120 gph burner in a relatively small boiler room will be the result of allowing more outside air to enter the boiler room?

No. 2: If an outside-air opening is needed, how large should it be in square feet?

H. W., Cleveland

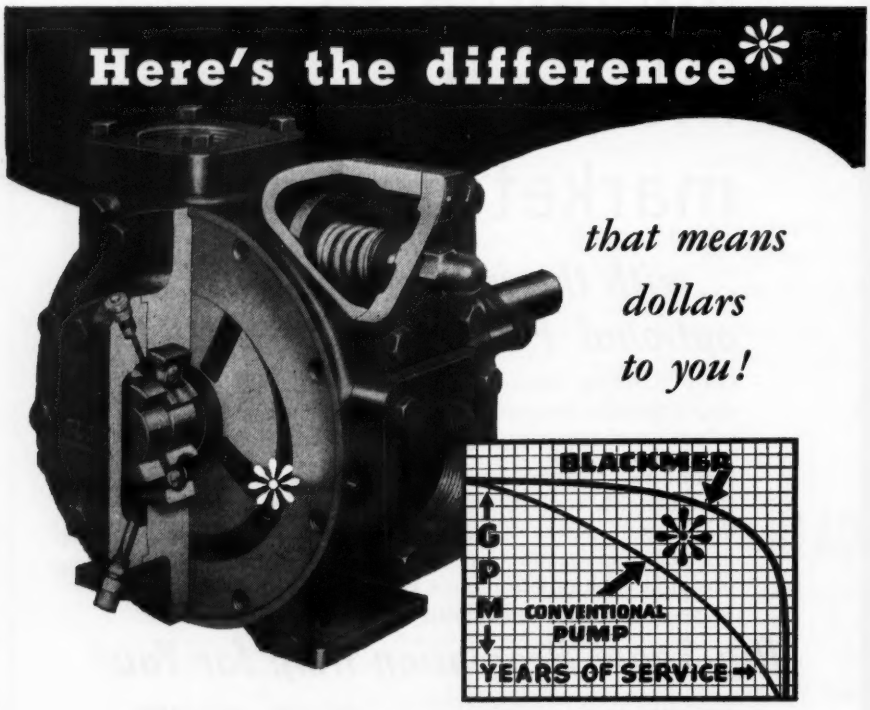
A. No. 1: Run the burner about 20 minutes with boiler-room doors and windows closed as they are usually. Make complete combustion tests; smoke and CO_2 readings are especially important. Then open large doors and windows to admit lots of outside air, and again make combustion tests. If now the CO_2 reading is lower, or the smoke reading is lower, tightness of the boiler room with windows and doors closed was reducing the air-flow to the flame, and the boiler room does need more air.

But if the combustion-test readings are precisely the same with the boiler-room doors and windows closed or open, nothing can be gained by permitting more outside air to enter the boiler room. Too much outside air, in fact, has the disadvantage of chilling the boiler room and the equipment in it.

No. 2: An outside-air opening designed to provide all the air a burner needs often is designed to have twice the area of the smokepipe or breeching needed for the boiler the burner is firing.

Q. How heavy are loads caused by heating No. 6 fueloil? Example: Under-the-waterline oil heater on low-pressure steam boiler; flow rate 100 gph; incoming oil temperature from suction line is 115°F., and oil leaves heater at 165°F. flowing to two-pump burner having reservoir.

Is this an appreciable load on a 80



This chart illustrates the sustained efficiency of the Blackmer design. Internal wear has only slight effect on the volumetric efficiency of a Blackmer pump until the "Vanes" are finally worn to the critical point. Even after severe service, the wearing parts can be replaced easily and economically.

The high mechanical efficiency of the Blackmer design reduces the power requirement, and it is not uncommon for a Blackmer pump to require a smaller motor than other designs thereby reducing both initial and operating costs.

Available in rated capacities — from 10 GPM to 1500 GPM, pressures — up to 150 psi.

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COSTS 75% LESS

THAN ANY COMPETITIVE PRODUCT ON THE MARKET TODAY!
One Penny will treat 25½ gals. of #2 Fuel Oil.
STOPS COSTLY SERVICE CALLS!

POSITIVELY PROVIDES BETTER, CLEANER, MORE EFFICIENT HEAT WITH SAVINGS UP TO 20%

- Ends offensive odor.
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- Eliminates clogged-up strainers and nozzles due to sludge.
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hp steam boiler fired at 25 gph?

If not, I want to know precisely how to figure load anyhow, for on another job I will use a small oil boiler or gas boiler just for powering such an oil heater as described earlier.

T. L. W., Jacksonville, Fla.

A. The 100 gph equals 800 lbs. per hour, heated 50°F. over the range you stipulate. For water, the 800 lbs. per hour heated 50°F. would require 40,000 Btu per hour. But you multiply this by one-half and get load of 20,000 Btu per hour for No. 6 fueloil, because its specific heat is .5 roughly. Divide the 20,000 by 240 (Btu per hour equivalent of one square foot of steam radiation) and you obtain 83 sq. ft. steam as the load the heater places on the boiler.

If you use a small boiler fired by light fueloil or gas to carry this fuel-oil-heater load, allow for piping and pick-up. Even with heater and piping excellently insulated, consider installing a small boiler able to carry net load of 120 or 150 sq. ft. steam radiation.

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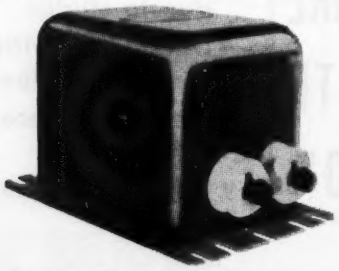

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WALNUT 2-2185

Q. I service burners and have a friend also a serviceman but working for a different company. I ask you about his problems. We read your article on the Honeywell Moduflow electronic control system, by J. W. Schulz in last May's issue.

The job giving trouble has an electronic-type heat-control system, installed five or six years ago.

First question: In this forced hot-water system, does the use of the electronic heat-control system relate to the fact that there's always been insufficient hot water on tap mornings? If the heat is at all low at night, below 68°, when the set-up of heat occurs in the morning the circulator runs and runs, filling the boiler with cool water from the radiators, and causing the tankless heater in the boiler to give "hot water" that is definitely too cool. Therefore the owner has not been permitting the house to cool off at night. To get hot baths mornings, he keeps the house hot nights.

Second question: What can be done to permit keeping the house cool at night without causing the hot water to be too cool mornings?

Third question: If a serviceman cannot service an electronic heat-control system that's not working, how can he provide heat in an emergency? Once or twice each year, this electronic system needs attention that can be given it properly only by experts who must travel many miles and who don't get to the brokendown job for many days.

W. S., New Brunswick, N. J.

A. First, the electronic heat-control system simply serves in place of a usual room thermostat, and the use of this system is not related at all to the difficulties experienced early mornings with the tankless water heater. Just as shortcomings in an ordinary room thermostat (not electronic that is, and either plain type or clock type) can't cause insufficient hot water on tap, difficulties with the electronic heat-control system cannot cause insufficient hot water on tap. Don't blame the electronic heat-control system for the water heating trouble.

Second, as there's plenty of hot water except if the circulator runs long

Mr. Serviceman

you lose 47c every time you try to clean a nozzle

here's why:

SERVICING DEALERS HAVE TOLD US

A Basic Call Costs	$4.18 per hour
A Basic Call plus $1 for a new nozzle costs	5.18 per hour
A Basic Call plus 15 minutes to clean and replace a nozzle plus one callback in every ten calls due to improper cleaning costs	5.65 per hour

SO . . .

When you clean a nozzle, it actually costs you	$5.65 per call
When you replace the nozzle, your cost is	5.18 per call

The 47 cents difference is what you lose

IT'S ONLY COMMON SENSE, then to follow a service practice that saves your company money and also makes satisfied customers.

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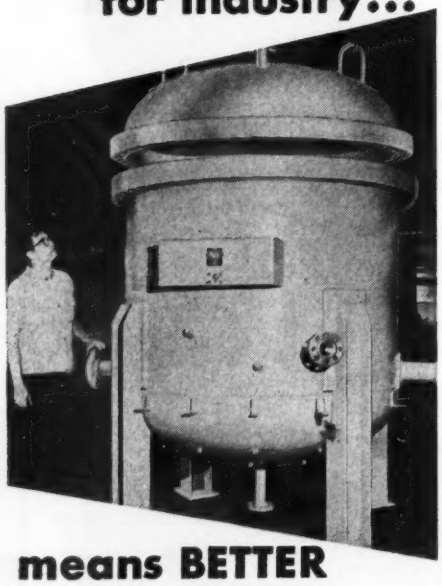

means BETTER Fulflo FILTERS for Oil Burners

The gigantic Fulflo Filter pictured above employs 1256 Honeycomb Filter Tubes. It's one of a wide variety made by Commercial Filters in providing micro-fine filtration for industry.

What does this mean to *you?* The experience and knowledge gained from serving America's industries is constantly applied toward making better Fulflo Filters for America's oil burners. You get a rugged, *dependable* filter. You eliminate costly service calls. You keep your customers happy. The result — *more profit for you.*

Dealers all over the country have found this true. That's why *more dealers* use *Fulflo Filters* than any other make.

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enough to cool off the boiler early mornings, the gph firing rate and the capacity of the tankless heater coil must be adequate. To provide ample hot water mornings together with reducing the temperature of the house at night, all you need do is install a reverse-acting boiler-temperature control sufficiently sensitive to stop the circulator when circulator operation will cool the boiler to the degree that the tankless heater does not provide hot enough water from the hot-water faucets.

Of course, in addition to being sensitive enough, the reverse-acting control must be located properly on the boiler. It may be that from the time it was installed this boiler had no reverse-acting temperature control to prevent circulator operation from cooling the boiler water; or it may be that the job always had a reverse-acting boiler temperature control either improperly located on the boiler or not sufficiently sensitive. In any event, the hot water difficulties should have been diagnosed properly and remedied years ago, soon after the boiler was installed.

Third: Why don't the servicemen who take care of this installation learn how to service electronic controls? The May issue article on the M-H electronic Moduflow system stated emphatically that to be capable of servicing their customers' installations, servicemen now must understand electronic control system, because these are being installed by the thousands.

You should know this, however. On this job two wires connect the electronic control system to the two pilot-circuit low-voltage terminals of the circulator relay. In an emergency related to breakdown of the electronic control, simply disconnect the two above-described wires from the pilot circuit of the circulator relay. Install a two-wire ordinary room thermostat on a temporary basis; connect it up very simply, so that when "on" it causes the circulator relay to snap in and run the circulator. Connect the ordinary room thermostat to the low-voltage pilot-circuit terminals of the circulator relay.

Perhaps this homeowner should use an ordinary room thermostat until local servicemen learn how to take care of his electronic heat-control system—to take into consideration the amount of trouble you say he's had for years because of the inability of local servicemen to take care of his electronic controls. But there's nothing electronic about his early-morning water-heating difficulties, experienced when he reduces the house temperature at night. Those difficulties should have been diagnosed properly and ended when the boiler first was put to work.

Q. Some time ago an article said needless cleaning of suction-line strainer can be avoided by installing two vacuum gages, one at each side of strainer, and then cleaning strainer only when the gages give different readings. I did that on a No. 6 fueloil job where janitor used to clean the strainer every week. He started worrying because for five weeks the two gages gave the same readings, about 8" to 11½". So he cleans the strainer every five weeks to play safe. He finds little dirt in it, but says he worries less than if he waited longer between cleanings. Is the twin vacuum-gage idea entirely wasted on this job? At what difference in reading should he clean the strainer?

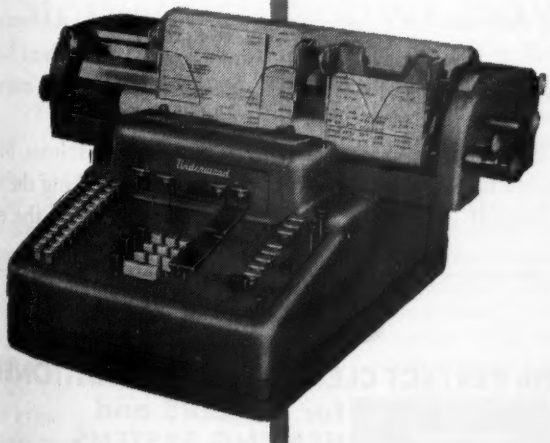
T. K. U., Aurora, Ill.

A. The idea is not wasted because already the janitor has reduced his strainer-cleaning work to one-fifth of what it was! He may be using little oil per week relative to the capacity of the strainer, or he may be fortunate in obtaining especially clean fueloil that needs little straining. You might check to make certain the strainer mesh or holes are small enough for proper straining of the fueloil flowing to the burner.

On many similar jobs, the proper time to clean the strainer is within about 24 hours of the time the two vacuum gages start giving readings which are different by as much as five inches.

Plan to clean the strainer when the vacuum gage on its burner side gives a reading five inches higher than the reading of the other vacuum gage. More frequent cleaning is needed for burners on the verge of giving trouble related to excessive suction-line vacuum.

Making man the master of paperwork



As your oil delivery volume grows, you know how the paperwork volume grows even faster. The usual delivery schedule mix-ups, customer account mistakes, and month-end bookkeeping jams make it more and more difficult to render efficient and *profitable* service. That's the point where it pays you to look around and see how the other fellow solved similar problems.

Many a fuel oil dealer has conquered his paperwork problems with a simplified degree-day system on that ten-key bookkeeping marvel . . . the Underwood Sundstrand Fuel Oil Dealer Machine. Let us give you the names and addresses of some of those dealers — and a few interesting pointers about the latest Underwood Systems for fuel oil dealer accounting. Call your local Underwood showroom (see Yellow Pages), or write to Underwood Corporation, One Park Avenue, New York 16.

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FOR FURTHER INFORMATION AND DETAILS ON THE GENERAL "GIANT" FURNACE CLEANER or for literature on the New big GENERAL "SPACE SAVER"—no bag, all-weather operation . . . no parking problem.

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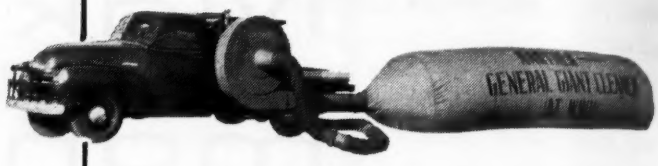

Wm. W. Meyer & Sons, Inc.

8260 Elmwood Ave. Skokie, Illinois

(Suburban Chicago)

Phone: INdependence 3-5127

Q. Your articles report suction-line vacuums of 20" to 23". On this job I just was called in to service for the first time, closing tight a 1¼" valve located in suction line gives maximum reading of only 18" at tee I installed at pump inlet for testing.

The 1¼" valve I close is located at foundation wall where suction line enters cellar. Then the 1¼" suction line runs 70 ft. under concrete cellar floor, winding up at oil pump on burner. Job uses No. 5 oil, was installed by owner himself, and has no suction-line shut-off valve or strainer located near the burner.

Trouble is flame goes out sometimes, though my newly installed vacuum gage in suction line at burner shows only 6". When I close the suction-line 1¼" valve that's 70 ft. from the burner, my new vacuum gage shows reading no higher than 18".

K. L., Sharon, Pa.

A. Probably the 70 ft. run of suction line located under the concrete floor has bad air leaks, which must be located and sealed before the burner will run properly.

Test the pump by installing a shut-off valve in the suction line, at the tank side of the vacuum gage you installed at the pump intake. Make certain all joints between this new valve and the burner oil-pump are air-tight. Then run the burner with the new suction-line valve tight-closed. Make certain the oil pump has plenty of oil and no air in it to start off, and take every precaution. Running that way, if the pump is in good condition it will develop a vacuum of 25" or more, which will be reported by your new vacuum gage. If it does, you have been getting the 18" reading because of leaks in the suction line located under the concrete floor.

If it can't develop 25" vacuum, replace the pump with one that can. Of course, you should install a suction-line strainer close to the pump to protect it. Provide valves to facilitate cleaning the strainer. Check the jobs for any other mistakes the owner made in installing the burner himself.

Q. I'm modernizing a three-burner boiler room and find that, in addition to electric oil heaters that are part of the burners, I need 5,000 to 8,000 watts additional electric oil-heater capacity to permit excellent starting of one of the burners when the whole equipment has been idle and has become cold. But the size of the electric service wires coming into the boiler room is not large enough for all the electric oil heaters, including the new one I need, to be "on" at once.

Is there some way around this problem without doing the costly job of running much heavier feed wires the great distance from the electric meter to the boiler room?

The additional 5,000 to 8,000 watt electric heater I plan installing will give hot oil at 120°F. to one of the burners to get it started, whereas up to now a burner always received stone-cold No. 6 oil, attempting a start-up with the boilers cold.

D. A. C., Melrose, Mass.

A. You seem to be making the mistake of figuring that all of the elec-

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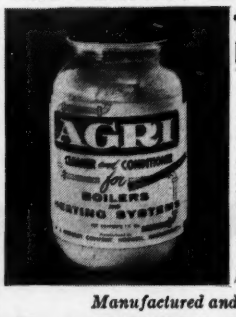

Saves 10% to 30% in fuel costs. Easy to use. Safe — harmless — efficient. Non corrosive to Iron, Steel, Brass and Copper. One jar services from 1200 to 1900 square feet of standing radiation.

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J-M insulating fire brick save you time on the job! Quickly, easily cut with a hacksaw, they make it easy to build fireboxes to the exact size and shape manufacturers recommend for top efficiency.

Assure customer satisfaction

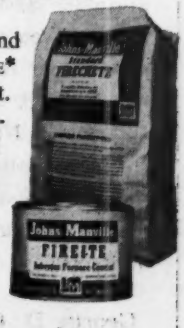
J-M insulating fire brick save your customers as much as 10¢ on every fuel dollar! Here's why:

Heavy, ordinary fire brick soak up heat, take longer to reach operating temperature. Lightweight J-M insulating fire brick eliminate this fuel waste! Within seconds after the burner goes on—they heat to white-hot intensity. Customers also appreciate the noticeable reduction in soot, smoke and odor made possible by higher combustion chamber temperatures. And they welcome the sound-deadening qualities of J-M insulating fire brick which reduce operating noise. Recommended insulating fire brick for domestic oil burner fireboxes: JM-20, JM-23, JM-26. For industrial use: JM-28 and JM-3000.

For information, see your nearest authorized Johns-Manville Distributor. Or write Johns-Manville, Box 14, New York 16, N.Y. In Canada, 565 Lakeshore Road East, Port Credit, Ontario.

For sealing against gas and air leaks, use J-M FIREITE* Asbestos Furnace Cement. For lining hearths of rotary burners, use J-M STANDARD FIRECRETE*—a hydraulic setting refractory—ready for use in 24 hours.

*Reg. U. S. Pat. Off.



JOHNS-MANVILLE JM PRODUCTS

Johns-Manville INSULATING FIRE BRICK

FOR "SKIN-HEAT-IN-SECONDS" IN FIREBOXES

fuel oil & oil heat

trical equipment in the boiler room will be turned on at once, when one burner is being started to warm up just one boiler. You are figuring the start-up electrical load as including the three burner motors, the three electric oil heaters on the burners, and the new 5,000 or 8,000 watt suction-line heater.

If instead you figure that the new electric heater will be used only when one burner is being started, the lines now giving power to the boiler room will be large enough for the new, increased electrical load.

Leave instructions on the job that the new 5,000 or 8,000 watt suction-line heater is to be turned on only when one burner is being operated—never when more than one burner, and more than one burner-mounted cup-line electric heater, is turned on.

One way to cope with insufficient electric supply into a boiler room is to plan to use stored-up electrical energy or heat energy in this way. Install a relatively small electric heater, say 3,000 watt size, in a large properly designed suction-line reservoir containing 80 gallons or more of fueloil. Before starting a burner to heat up a boiler, turn on the electric heater. Give it enough time to heat all the oil in the reservoir to 120°F. or 150°F. The principle is that a small electric heater, working over a period of hours, can warm up a large reservoir of fueloil.

This expedient is not as satisfactory, of course, as providing the suction line with a large heater able to raise the temperature of the suction-line fueloil by 50°F. while the burner pump runs continuously.

Q. I just found out an industrial set-up I service, using more than 100,000 gallons a year, buys a mixture of 40% light oil and 60% No. 6 oil. The light oil is called No. 4, though dark in color and dirty looking has viscosity below 60 SSU at 100°F. and actually is being used in large pressure burners firing above 6.0 or 8.0 gph.

Question #1—Oil supplier describes this 40%-60% mixture as being properly mixed at the bulk plant, but can the oils separate out in the owner's tank and cause service trouble I am having?

Question #2—Has some equipment arrangement been developed recently to keep these two kinds of oil properly mixed in the owner's tank?

H. F. W., Brooklyn, N. Y.

A. Everything depends on the technical knowledge and integrity of the fueloil supplier. Many good oil companies are providing excellent mixtures of fueloils, tailored to have viscosities and other characteristics to match the requirements of their customers' oil-burning arrangements.

An oilburner set-up having all the characteristics needed to make it suitable for using No. 6 fueloil should not give trouble using high-quality oil of the mixture type which you describe. But the burners may not be able to use the heaviest oil that, according to the Commercial Standards, can be sold today as No. 6.

We know of no manufacturer offering special equipment to keep fueloil properly mixed in the tank of an oilburner owner.

EARN

Unusually High Income in the Underground Lawn Sprinkler Business

The selling and installing of NOMA SPRAY Sprinkler System is a highly profitable business, which fills in at the time when your fuel oil business drops off . . . It is the answer to keeping your personnel busy year 'round.

We are looking for additional Franchised Distributors to sell and install our NOMA SPRAY Underground Lawn Sprinkler Systems in selected territories through our sales proven methods . . . This is a once-in-a-lifetime opportunity for the men we select to build a business which offers security, independence and a prosperous future . . . NOMA SPRAY, a product of Noma Lites, Inc., is sensationally new and is recognized to have tremendous sales potential and consumer acceptance. A small investment and references will be required. Write to:

George D. Green, Sales Manager, Noma Spray
55 West 13th Street, New York 11, N. Y.

Stop Oil Leaks!

WITHOUT DOWN TIME and with UNIT in SERVICE!

Users' Reports Tell How OYLTITE-Stik can help you

". . . to make instant repairs on basement storage tanks . . . a great time saver."
A New York Oil Distributor

". . . on seams of large oil tanks where weld was not perfect."
A Wisconsin Fuel Company

". . . we punched a hole in the tank with an ice pick, then filled the tank and plugged the hole with the oil running out; it has held for months."
A Maryland Contractor

". . . to seal small holes of oil storage tanks, created through condensation."
An Illinois Contractor

". . . has done such a good job we do not want a service man to be without one."
A Pennsylvania Heating Company

". . . to repair leaks in domestic tanks inaccessible for repair by other methods . . . most satisfactory."
A Canadian Contractor

OYLTITE-Stik is one of the best time-savers and trouble-stoppers you can find.

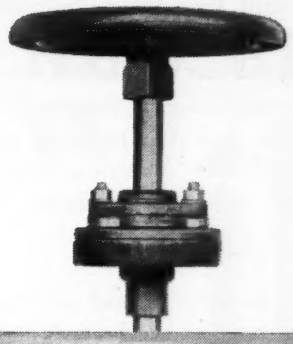
• See your suppliers for OYLTITE-Stik or write direct on company letterhead for free sample.

LA-CO

LAKE CHEMICAL CO.
3086 W. Carroll Ave., Chicago 12, Ill.

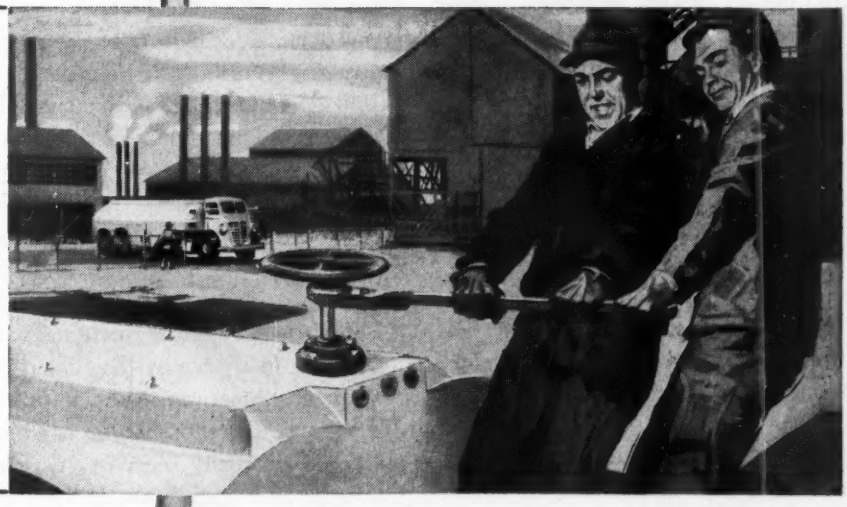
A NEW UNBREAKABLE

VALVE



FOR ASPHALT, RESINS AND SIMILAR PRODUCTS

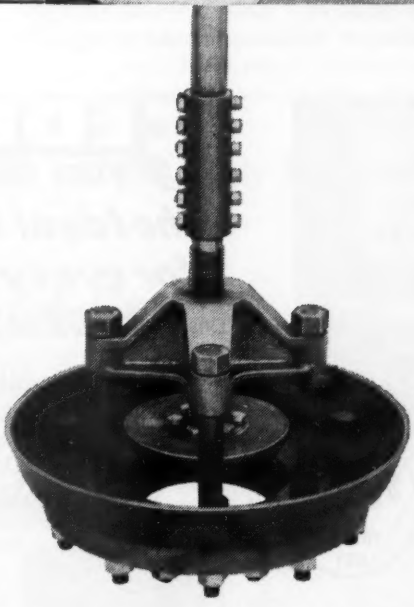
NEW HI-STRENGTH PHILADELPHIA VALVES CAN BE FREED WITH A 36-INCH WRENCH WITHOUT DAMAGING THE VALVES



There are no weak links, no pins that will shear, no threads that will strip or shafts that will twist off, nor any other part that will fail under severe load conditions.

This valve was designed so that if the product solidifies it can be broken loose without ruining the valve. Two men pulling with a force of 100# each at the end of a 36″ wrench on the square hub on the wheel will not damage the valve. Under these conditions the screw exerts a force of 48,000# on the disc, either to open it or close it—a force which will break loose any product that has solidified. All parts are made of steel or manganese bronze with alloy steel bolts. A self-tightening stuffing box is provided at the top.

In spite of all these features, there is no unnecessary metal and weight in these valves. Specify Philadelphia Valves on your next asphalt tank and end your troubles.



New Hi-Strength Philadelphia Valves are made in 4″ and 6″ sizes for either internal or external installation.

PHILADELPHIA VALVE COMPANY

ARAMINGO AVENUE AND EAST TIOGA STREET, PHILADELPHIA 34, PA.

Pacific Coast Distributors:

Oil Marketing Equipment Company, 325 Fremont Street, San Francisco 5, California
Howard Supply Company, 5125 Santa Fe Avenue Los Angeles 11, California
New England Distributor: Northeastern Petroleum Service & Supply, Inc., 37 Brookley Road, Jamaica Plain 30, Mass.

Names in the News

(*Starts on page 22*)

R. O. Kennedy Jr. has been appointed sales manager of the Air Impeller Division, The Torrington Manufacturing Co., Torrington, Conn., producer of fans, blower wheels and blower units. Kennedy will be responsible for sales planning and development. He had been executive vice-president of Allen D. Cardwell Electronics Productions Corp. after three years as a management consultant.

Recently appointed branch manager in Kansas City, Mo., for National-U. S. Radiator Corp. of Johnstown, Pa., is *Dayton L. Bergman,* succeeding *L. J. Finn,* who retired after 48 years' association with the corporation and its predecessors. Bergman joined the sales staff of The National Radiator Company in 1949 and was connected with the Pittsburgh branch office until 1956 when the company merged with U. S. Radiator Corp. During the year past, he has served as sales manager of the Cincinnati branch office. He is a past president of the Dayton Chapter, American Society of Heating and Airconditioning Engineers.

H. C. Galleher, former sales promotion manager of the heating and airconditioning department of Conco Engineering Works, a division of H. D. Conkey & Company, Mendota, Ill., has been promoted to advertising manager of Conkey. In his new assignment, he will assume responsibility also for the advertising programs of the company's several other divisions.

John Buckley has been elected vice-president in charge of the fueloil department, American Mineral Spirits Company, Chicago, Ill. He has been with the company the past 20 years. Starting as a statistician, he later became a salesman in the company's wholesale fueloil department and, in 1947, was appointed manager of the department. During World War II, he was active in the fueloil rationing program in the East, and is a past president of the "Fifty Niner's Association" of the petroleum industry.

William E. Prather of the Lau Blower Co., Dayton, Ohio, who was appointed a vice-president of production in 1954 and placed in charge of plant planning in 1955, has been named vice-president of plants and facilities. He will be in charge of the company's production facilities in Dayton, Azusa, Calif., and Kitchener, Ontario.

Sergeant Lea Jr. has been named by The Atlantic Refining Co., Philadelphia, Pa., as special assistant to the manager of the fueloil marketing section. He formerly was copy assistant in the advertising section. Succeeding Lea will be *Dawes Walter,* former administrative assistant to the assistant general manager, domestic marketing department.

✓ FEWER EMERGENCY CALLS FOR YOU

RENEW FILTER Signal warns in advance of furnace troubles developing from dirt-clogged air filters—eliminates the most common cause of service complaints.

✓ BETTER HEATING FOR YOUR CUSTOMERS

RENEW FILTER Signal tells when it's time to replace dirty filters—guarantees clean, comfortable heat at all times; worthwhile savings on fuel and cleaning bills; protection against furnace damage.

Bacharach FILTER GAUGE

Fits all types of heating and cooling units.

Accurately adjustable for any kind of replaceable or washable filter.

Easy to install. Drill 4 holes and mount—no connection across filter—no electrical connections.

Suggested Retail Price, $6.35 plus installation charge.

ASK YOUR JOBBER OR WRITE FOR LEAFLET 64

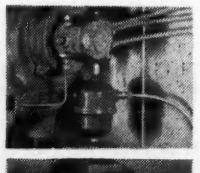
BACHARACH INDUSTRIAL INSTRUMENT CO.
FG-4a 200 N. BRADDOCK AVE. • PITTSBURGH 8, PENNA.

FEDERAL
FUEL OIL FILTER

the Ideal Unit for every job... LARGE OR SMALL

The Finest Filter to ★SELL ★INSTALL ★SERVICE

INSTALL ON TANK



PUMP OR BURNER

Here's the one filter unit that satisfies both customer and dealer requirements. Designed by heating engineers to prevent clogging of burner nozzles and provide trouble-free service of oil heating systems. Continuous, complete filtration traps all dust, dirt, sludge, rust and other impurities.

One model with 90 g.p.h. capacity handles most filtering jobs. Only one unit to stock—solves inventory problems.

Simple to install with minimum of fittings. Easy to service with replaceable Federal C-77 cartridge which fits all leading filters. Low initial cost makes it easy to sell.

Mention Federal Filter on every call to give your customers trouble-free heat for less money. Contact your distributor or write to Dept. O-3.

NORWOOD PRODUCTS CO.
(DIVISION OF A. R. WOOD MF'G. CO.)
LUVERNE, MINNESOTA

it's new...it's neat...it's here!

ROCHESTER'S NEW FILL SIGNAL...

"filtone"

The Filtone is designed to operate with a minimum of back pressure, has no "dead spots" and has far greater strength for supporting the vent pipe. The Filtone offers you both installation and fuel servicing advantages:

FLANGE - TYPE CONNECTOR — Made in two parts which are bolted together to eliminate need for unions, compression-type couplings, or the need to build the vent up from the tank. Has tensile strength one-third greater than malleable iron.

MINIMUM BACK PRESSURE — The RMC Filtone operates with a minimum of back pressure: (1) while tank is being filled and vent is exhausting air only, and (2) when liquid may actually be up to the vent, in case of overfills.

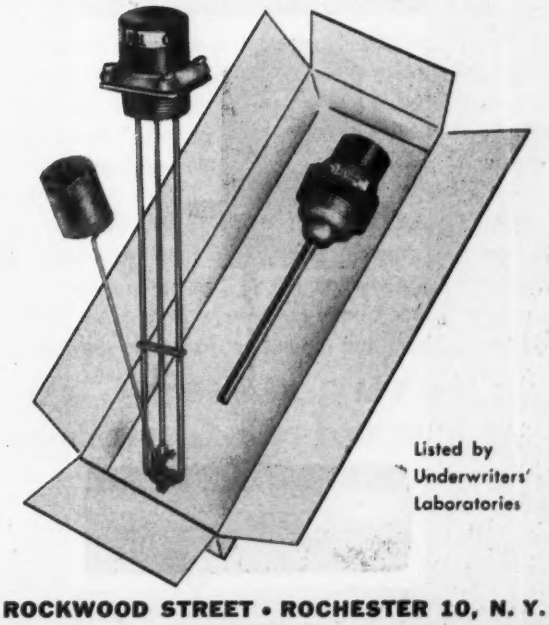
DEPENDABLE, AUDIBLE SIGNAL — Makes a solid, pleasant whistle sound the moment fuel begins to pour into tank. Has no "dead spots" at any rate of fill from 15 gpm to 60 gpm. When the sound stops, the delivery man knows the tank is full.

NOW RMC offers the best combination buy . . .

Rochester's *Universal* Gauge with the new *Filtone* signal

Sold and packaged together, the Rochester GAUGE-SIGNAL SET gives you a dependable, pressure-tight, easily read Oil Tank Gauge **and** a dependable Fill Signal with minimum obstruction in the vent pipe. With two distinct units, specifically designed for their job, the time and expense of plugging an extra tank opening is not necessary as is required by a combined vent signal and gauge.

Call your jobber, or write the factory, but whatever you do start using this "perfect package" now. It will save you time, trouble and money!



Listed by Underwriters' Laboratories

RMC

ROCHESTER MANUFACTURING CO. • 8 ROCKWOOD STREET • ROCHESTER 10, N. Y.

LIQUID LEVEL, TEMPERATURE and PRESSURE INSTRUMENTS

RMC REPRESENTATIVES

WILLIAM J. DEBLER
31 Gordon Rd.
Needham, Mass.

V. E. DUNNING
2949 Harriet Avenue, S.
Minneapolis, Minnesota

JOSEPH BERNARD
511 Harper Avenue
Drexel Hill, Penna.

RALPH M. NELSON
412 Marshall Bldg.,
Cleveland 13, Ohio

SAMUEL SKNER
274 Madison Avenue
New York 16, New York

ROCHESTER MFG. CO., INC.
12143 S. Halsted St.,
Chicago 28, Illinois

HALL AGENCIES
4 Manor Road, E.
Toronto, Ont., Canada

CHARLES J. DAVIS
215 Cushman St.
Plainwell, Michigan

FRANK L. CASSIDY
6916 - 56th Ave. S.
Seattle, Washington

FRANK HACKETT
759 N. Milwaukee St.
Milwaukee 2, Wisconsin

CHARLES P. McKENNA, JR.
P.O. Box 155
Richmond 1, Virginia

Personnel changes announced for Electric Furnace-Man

PROMOTION of Norwood Allender from district manager to assistant sales manager of Electric Furnace-Man, Inc., Emmaus, Pa., and the appointment of three district managers has been announced.

New district managers are Arthur P. Ennis, for western New England; Glenn A. Kepner, for southern Pennsylvania, south Jersey, Maryland and Delaware, and Harrison G. Stortz, for western New York and contiguous portions of northern Pennsylvania.

New Honeywell Handbook gives all the Answers on Controls

ANSWERS to the $64,000 question or any other on the installation and operation of Minneapolis-Honeywell home-designed controls appear in newly-published, pocket-sized handbooks being offered residential controls installers and servicemen by Honeywell.

Published in five volumes, the handbooks of interest to fueloil dealers would be Volume 3 on oil controls now available, and Volume 5 on residential airconditioning controls, to be published later in the year. The handbooks measure five by eight inches and are spiral-bound to lie flat at any page. They were edited by William Berg, supervisor of Honeywell's Educational Residential Sales Department and are available free to dealers.

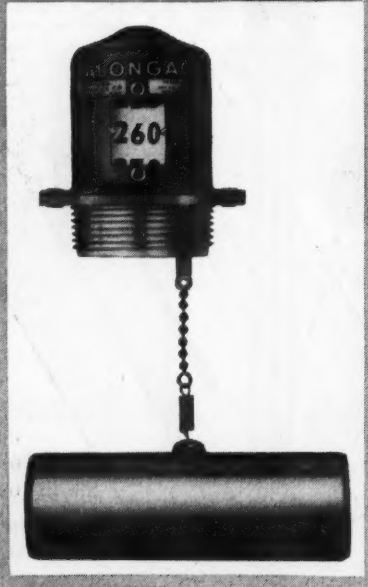
Worthington's annual field service Series gets underway

FIRST of a series of 17 Worthington Corp. airconditioning and refrigeration field service meetings to be held throughout the country got underway February 25-26 at the Hotel Georgia in Atlanta, Ga.

Installation and servicing of Worthington packaged, residential and central station equipment was the subject of the meeting attended by 30 Worthington wholesalers and dealers. Purpose of the meeting and others to be held during a 7-weeks' tour of the country by W. C. Clow, Worthington director of service education, is to upgrade field service men with practical education in refrigeration techniques.

Panel board *is used by W. C. Clow, right, to visually explain operation of Worthington refrigeration equipment to field servicemen attending Atlanta meeting, first of series of field service meetings to be held throughout the country.*

Galongage



The "Extra"
your customers will gladly buy!
A quality product by
APPLIED MECHANICS COMPANY
381 CONGRESS STREET, BOSTON, MASS.

EVERYTHING IS ECONOMICAL ABOUT Rectorseal #2

Economy begins the moment you buy a nozzle-tipped tube or brush-top can of superior quality Rectorseal. It costs from 20% to 40% less than other sealing compounds.

Economy continues with every use. Thin in the container for smooth, easy application, you get leakproof protection on gaskets and threaded connections to the very last drop. There's absolutely no waste because Rectorseal #2 has the same fine consistency from top to bottom of can or tube. And because its light color shows up better than dark compounds — it doesn't stain the jobsite.

This special chemical formula dries fast, sets soft . . . seals for the life of the connection . . . yet is always easy to break out.

To see for yourself why Rectorseal is the most economical compound you can use, write today for your free sample.

RECTORSEAL Dept. O
2215 Commerce Street, Houston 2, Texas

RECTORSEAL®
NUMBER TWO

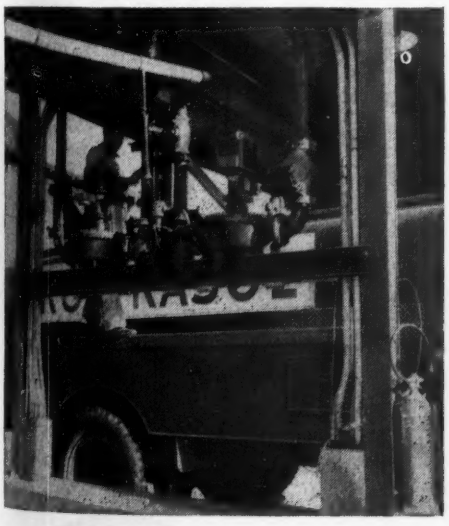
In Neptune Remote Control System, control valve at rack opens automatically when ticket is "printed in."

at Metropolitan Petroleum's new Bronx Bulk Plant . . .

NO WAITING, NO WRITING, NO RUNNING

with Red Seal Remote Control Metering

Register at rack is accurately synchronized with ticket-printing register in office. These Red Seal meters are 18 years old, still highly accurate.



Smooth, fast flow of dealers' trucks through 12 loading bays is handled by one man in this modern, automatic bulk plant. Aided by Neptune Remote Control Meters, the dispatcher stays inside the office, with complete control over every delivery.

The 12 registers in the office are accurately synchronized with the rack meters. When a truck rolls into a bay, the dispatcher "prints in" a ticket in the proper office register. This automatically opens a Neptune control valve at that bay. No product can be drawn until this is done. The action of "printing out" the ticket closes the valve again. On his way out, the driver stops at the office just long enough to sign the ticket.

There's more to this story: All of these Red Seals were salvaged from Metropolitan's old plant and are up to 18 years old. Instead of wearing out, they have mellowed into a condition of extremely stable accuracy. Now part of a system as modern as tomorrow, they're good for decades more of accurate, dependable service.

NEPTUNE METER COMPANY

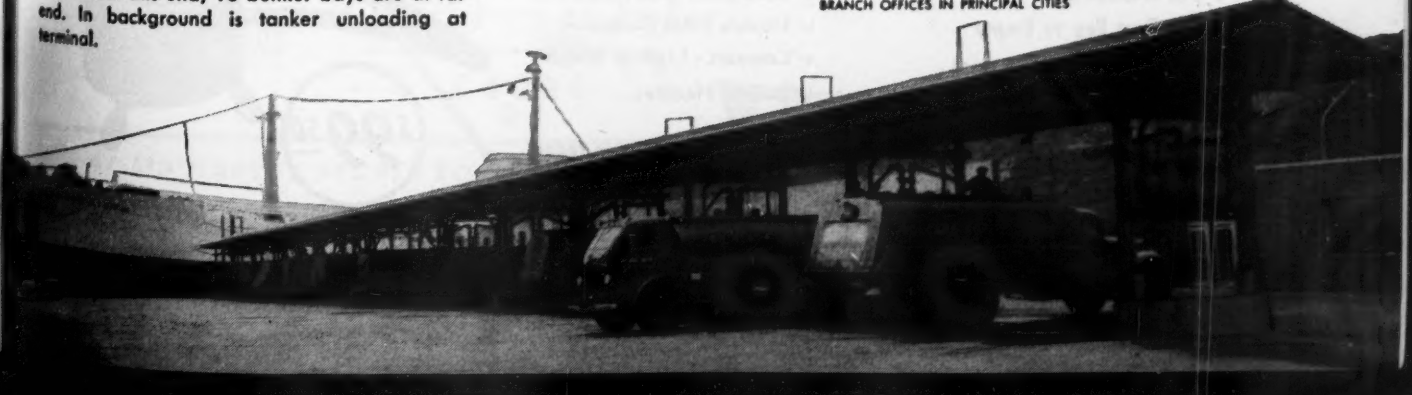
19 WEST 50TH STREET • NEW YORK 20, N. Y.

neptune

Red Seal Meters . . . for a better measure of profit

BRANCH OFFICES IN PRINCIPAL CITIES

Wide-open run-ways speed traffic. 12 light-fuel bays are at this end; 16 bunker bays are at far end. In background is tanker unloading at terminal.



IRON-HIDE

BAFFLES SAVE FUEL

Easy to install, too, with the aid of our IRON-HIDE adjustable baffle support.
See your jobber.

We also manufacture COMBUSTION CHAMBERS in all sizes and shapes.

IRON-HIDE REFRACTORIES, Inc.
Dock Street, Matawan, New Jersey

for those with an eye for QUALITY . . .

Ace Brushes

for Plumbing & Heating industry

Flue Brush

"OFF THE SHELF SERVICE"

OUR SPECIALTY — INDUSTRIAL BRUSHES FOR HAND OR POWER USE

All Your Brushes From One Dependable Source
OUR FULLY ILLUSTRATED CATALOGUE ON REQUEST

ACE WIRE BRUSH CO. 146 Fulton St. Brooklyn 1, N. Y.

Duc-Pac licenses Canadian Firm to make Duc-Pac Duct

THE CANADIAN FIRM of Aero Tool Works Ltd., Toronto, has been licensed by Duc-Pac, Inc., East Longmeadow, Mass., to manufacture Duc-Pac trunk and stack duct. The Toronto company will make only the heavier Duc-Pac units but will distribute the complete Duc-Pac line to jobbers for resale in Canada with supplies of packaged fittings from the Duc-Pac Massachusetts plant.

Duc-Pac plans to extend this licensing agreement to a limited number of American manufacturers in order to expand its production facilities.

American-Standard expands training School Schedule

AN EXPANDED SCHEDULE for the 1957 distributor-dealer, heating-cooling courses held by the Airconditioning Division, American Standard, at its Elyria (Ohio) Training Center has been announced.

Seven one-week courses are scheduled: two classes on winter airconditioning, three on summer airconditioning, one a combination of heating and cooling, and an advanced class on heating and cooling. Classes are free to Airconditioning Division distributors and their dealers. Books and other materials are supplied by the company.

Summer airconditioning courses cover heat gain calculations, air distribution for comfort, design of duct systems, unit sizing, product installation and application. Heating courses cover factors affecting comfort, heat loss calculation, perimeter, loop and extended plenum systems, service, maintenance, installation and application of product.

Registration is handled through American-Standard Airconditioning Division distributors.

Lennox Ad stresses vital Role of "Comfort Craftsman" on Job

AN ADVERTISEMENT calling the public's attention to the factory-trained "Comfort Craftsmen" who install and service central residential heating and cooling equipment of Lennox Industries, Inc., was carried in the March issue of *Reader's Digest*.

In the format of a personal letter from Lennox president John W. Norris, the ad stressed the point that "brand name alone is not enough"—it takes installation know-how and servicing ability to achieve satisfactory central heating and airconditioning. These the Lennox customers get, the ad says, through the 5,617 local Comfort Craftsmen who are factory-trained by factory engineers to custom engineer, meticulously adjust and properly maintain Lennox systems of heating and airconditioning.

Steinen sales achievement Award goes to Milt Chinitz

THE ANNUAL AWARD of the William Steinen Mfg. Co., Newark, N. J., for outstanding national sales achievement has been presented to Milt Chinitz of Saddle Brook, N. J., whose sales record topped those of 27 other Steinen representatives country-wide.

SOOTMASTER

Furnace Cleaner with Disposable Filter . . .

CLEANS EASIER, SAFER, FASTER!

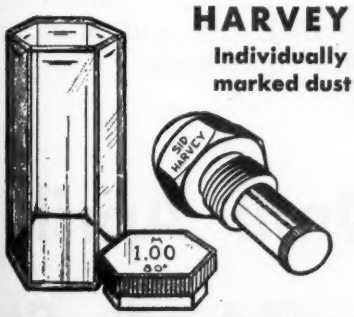
- ✓ No Outside Bag
- ✓ No Dust Bag to Empty
- ✓ Disposable Filter for easy emptying of container
- ✓ Leak-proof Dust Filters
- ✓ Double Filter Protection
- ✓ Compact - Light in Weight
- ✓ Easy to Handle

Interested? Want more details? Contact your jobber or write us today.
MASTER-CRAFT SUPPLY CO., INC., Dept. FO, W. HAVERSTRAW, N. Y.
Distributed in Canada by: Imperial Refractories, Ltd., Waterloo, Ontario

DON'T GAMBLE FOR PEANUTS

HARVEY NOZZLES

Individually packed in clearly marked dust proof containers.



Solid or Hollow Cone

HARVEY NOZZLE PACKAGE No. 2

Everything You Need for Nozzle Service

- 25 Assorted Nozzles and Strainers
- 18 Extra Assorted Strainers
- 6 Assorted Adaptors
- 1 Nozzle Brush
- 1 Spill Proof Metal Box

Make your own selection

TRADE PRICE $24.95

You lose in labor when you clean clogged nozzles in the field. Put on a new one, it costs you less.

Nozzles cost so little it doesn't pay to use anything but the best. Harvey Nozzles have a reputation for accuracy and dependability that have won them first choice on replacement jobs.

Harvey nozzles are individually packed, with strainer, in dust-proof plastic containers with the size, angle and cone type clearly marked on the lid.

Equip every service car with the famous Harvey Nozzle Package No. 2 for Maximum saving.

Harvey nozzles save you dollars in labor costs. Don't gamble these dollars for the peanuts that new nozzles cost.

47 SID HARVEY STORES TO SERVE YOU

SID HARVEY INC.
VALLEY STREAM NEW YORK

MAY two Special Issue

Published as two valuable Special Issues in Previous Years, NOW Combined into One Important MAY ISSUE:

1. BUYERS GUIDE & DIRECTORY

This highly useful Reference Issue is the "used-over-and-again" volume for Advertisers and Readers. It is the ONLY COMPLETE compilation of product sources sought by the oilheating-airconditioning-fueloil dealers who do the greatest volume of this business. It is the dependable Guide to hundreds of parts and components and completed oilheating equipment and air conditioning equipment, PLUS fueloil handling equipment.

Last year, detailed information was provided on 1700 manufacturers of oilheating and air conditioning equipment bought and sold by our readers, including accessories for their installation, and service, materials, components and parts for replacement, improvement, modernization, etc., and of manufacturers of bulk plant and fueloil and service truck equipment.

Ad Forms will be open Until April 12th

How Much Space

FUELOIL & OIL HEAT

2 West 45th St., New York 36, N. Y. • (MUrray Hill 2-4786)

A. G. WINKLER, *Adv. Dir.* **LEE STEEDLE, *Adv. Mgr.***

AUDITED PAID CIRCULATION ABC OHI MEMBER BPA

35 YEARS DEVOTED TO PROGRESS IN O

Covering Industry Trends in Manufacturi

e Combined into ONE!

Complete listings of names, addresses and personnel of manufacturers and principal distributors will be listed in two ways: ALPHABETICALLY, and also under PRODUCT HEADINGS. *NOTE: IF YOU HAVE NOT YET RETURNED YOUR QUESTIONNAIRE FOR THESE FREE LISTINGS, PLEASE DO SO NOW!*

Advertisers: This is a unique opportunity to get a Catalog and Reference Book value for your space PLUS the usual strong attention given every issue of FUELOIL & OIL HEAT—the readership that produces 75.59% Subscription Renewals (highest in the entire field).

2. SERVICE MANAGEMENT ISSUE

The Editors have asked 4,000 oilheating-fueloil-air conditioning dealers across the country the details of their costs, charges and operating methods. You'll find a complete report on oilheating service by dealers, during this last heating season, in this MAY ISSUE. It is the only authoritative source for information on dealer oilheating service practices in America. An especially good issue for the advertising of components, parts, accessories, tools, vacuum cleaners, tanks, service trucks and bodies, and equipment and materials used by dealers in service, replacement and modernization.

hould We Reserve for You?

Eastern Adv. Mgr.: Dick Raymond
Midwest: 224 So. Michigan Ave., Room 200, Chicago 4 (WAbash 2-9548)
Michigan-Ohio: Jim Becker, 137 So. St., Chelsea, Michigan (GReenwood 9-7641)
Pacific Coast: Don Harway, 1709 W. 8th St., Los Angeles 17, Calif. (DUnkirk 2-8576)

IN O ATING, AIR CONDITIONING & FUELOIL HANDLING

ibution, Sales Delivery, Service and Management

Fedders plan assists Dealer with Inventory Financing

FINANCE PLAN to assist the dealer with inventory financing of Fedders air-conditioners and dehumidifiers has been launched by the Fedders Quigan Corp. of Maspeth, N. Y. Under the plan administered by Donald C. Jackson, local banks will be able to safely and profitably take care of inventory financing requirements of Fedders dealers.

Dealers will benefit because they will be able to carry adequate inventories and floor displays of the Fedders line.

"Flying Squadron" *of Kalamazoo Furnace and Appliance Mfg. Co., Kalamazoo, Mich., consists of bright red-and-white station wagons manned by field sales personnel ready to dash into territory of newly-appointed distributor to help line up dealers for the new representative. Above, C. C. Whitcomb, left, president, presents key of "Flying Squadron" unit to salesman John D. Wilson while Paul B. Stowell and John Niewoonder wait their turn.*

M-H "School" trains Executives to teach Salesmen how to sell

A "SCHOOL" for owners, sales managers and other executives of heating and airconditioning wholesale firms was held in Minneapolis recently by Minneapolis-Honeywell Regulator Co. to show the executives how to teach their salesmen to sell.

The intensive, five-day institute conducted for the National Heating & Air Conditioning Wholesalers' Association was the third such course held by Honeywell. It used techniques developed by the company to increase "creative sales" among its sales engineers in more than 125 U. S. and Canadian offices of the company.

The course was designed to teach executives how to apply basic sales principles to their own heating and airconditioning sales problems. Materials were distributed for use within organizations and for conducting similar training programs in their own companies.

new!
KECO
Remote-Reading TANK GAUGE
For Oil and Gasoline
➡ Versatile!
➡ Attractively Priced!
➡ Economical to Handle!
➡ Minimum Dealer Inventory!
FREE BULLETIN shows why the Keco gauge is a natural for users, distributors and dealers alike. Write Today!
KING ENGINEERING CORP.
Box 410 • Ann Arbor, Mich.
MANUFACTURERS OF GAUGING EQUIPMENT FOR OVER 30 YEARS

More for your Money in
MORYSVILLE
Morysville U-2 for ½, ¾ or 1 ton chassis
BEST BODY - BEST BUY
• 14 and 16 ga. Body Steel (14 ga. throughout for models rated 1 ton up—19 ga. doors)
• 12 ga. Diamond Floor Plate
• Heavy U-Channel Understructure
• Electric Welded throughout
• Telescoping Roof and Hinged Gate
• Full-length Hinges with Brass Pins
• Solidly Framed Doors and Panels
• Recessed, Spring-loaded Latches with Individual Locks or Master Locking Device
• Fendix Undercoating (No Extra Charge)
IMMEDIATE DELIVERY • Distributors in Principal Cities
"BODIES YOU CAN DEPEND ON" TO LAST INDEFINITELY
MORYSVILLE Body Works INC.
813 SOUTH READING AVE. BOYERTOWN, PENNA.

Fluid Heat *sales representatives join sales organization of John Wood Co., purchaser of Fluid Heat name and products, at annual sales meeting of company's heater and tank division to hear prediction of increased sales.*

17% sales Rise is predicted at John Wood sales Meeting

AN INCREASE of 17% in sales of John Wood water heaters and Fluid Heat heating equipment in 1957 was predicted by John H. Gotwals, vice president and general manager of John Wood Co. heater and tank division, at the division's annual sales meeting in the Seaview Country Club, Atlantic City, N. J., January 21-23.

The meeting marked the consolidation of Fluid Heat sales representatives into the John Wood sales organization following purchase of Fluid Heat name and products by John Wood in 1956. Under a newly-announced plan, all John Wood salesmen will sell and promote both John Wood water heaters and Fluid Heat heating equipment.

Major sales increases are looked for by the company from intensive promotions aimed at the growing water heater and home heating replacement markets and from new products.

CAM-STAT sets up Wholesaler Network to supply Dealers

A WHOLESALER organization comprising 125 locations in the United States and 25 in Canada has been established by CAM-STAT, Inc., to stock CAM-STAT controls for replacement sales to dealers as well as handling the exchange of in-warranty controls.

In addition to the new Authorized Wholesaler-Exchange Agency, CAM-STAT maintains 12 sales and engineering offices in key cities throughout the United States and Canada.

Dover Manufacturing Co. opens new East Coast assembly Plant

A NEW ASSEMBLY PLANT in Greensboro, N. C., with warehousing and shipping facilities has been opened by the Dover Manufacturing Co., Independence, Mo. The firm, which makes a complete line of packaged cooling towers, now has two assembly plants in addition to the Independent plant: the new East Coast facility and the Merced, Calif., plant.

Dealers! Contractors! Get Ready for
"OPERATION CLEAN-UP"!

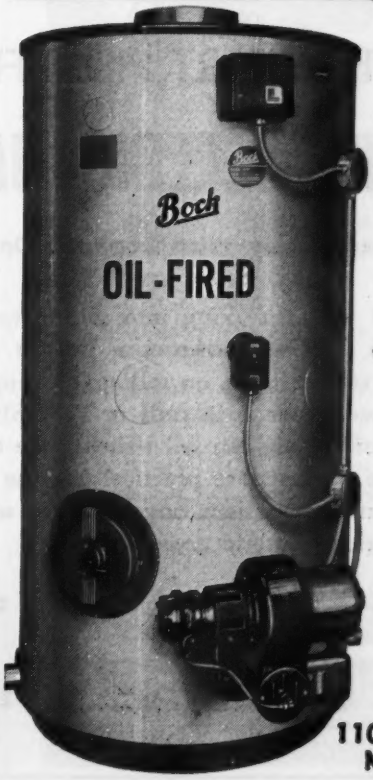
Order NOW from your Jobber!

Be sure your servicemen have an adequate supply of the proper brushes to do a fast, effective cleaning job!

Specify Famous WORCESTER BRUSHES and SCRAPERS
for cleaning tubes and flues of
• BOILERS • FURNACES • CHIMNEYS
Mr. Wholesaler: Write for Free Catalog!

WORCESTER BRUSH AND SCRAPER CO.
Division of
MASON-WORCESTER BRUSH CO.
38 AUSTIN ST. WORCESTER 1, MASS.

Big WATER HEATERS



• FOR the larger jobs where fast recovery plus storage are required. Handles a battery of showers with a single heater near the point of use. Save hundreds of dollars in tanks, pipe, and fittings.

• USED in schools, dormitories, apartments, motels, camps, etc. Supplies medium or high temperature water. Available with standard or A.S.M.E. tank. Oil or gas fired.

BOCK CORP.
110 S. DICKINSON ST.
MADISON 4, WIS.

Participants *in opening day ceremonies at the new Berkshire Transformer Corp. plant in Kent, Conn., included Charles P. Harrington, left, master of ceremonies; Honorable Abraham Ribicoff, center, governor of Connecticut, and Benjamin Hordeski, president of Berkshire.*

Gov. Ribicoff attends Opening of Berkshire plant in Kent

NEW PLANT of the Berkshire Transformer Company at Kent, Conn., was officially opened in recent ceremonies in which Connecticut's governor, The Honorable Abraham Ribicoff, participated. The new facility is a modern one-story structure equipped with the latest in automation and production methods.

Crane's Chicago sales Office goes Suburban after 92 Years

AFTER 92 YEARS of doing business at 156 North Jefferson St., Chicago, Ill., Crane Co. has moved its sales branch to the suburbs.

New headquarters for Crane Co. sales, warehousing, regional billing, credit and central district sales is a new, $1,800,000, airconditioned building at 9234 West Belmont, Franklin Park. Crane's general office remains in Chicago, 836 South Michigan as does the Chicago valve and fitting plant at 4100 South Kedzie.

The old Jefferson St. building won't be completely bereft of Crane, however. New owner of the site is the Warren Barr Supply Co., a wholesaler of Crane Co. For Barr, the move is a homecoming since he worked as a Crane employee at the Jefferson St. branch from 1926 until 1941, when he formed his own company.

Sid Harvey opens Baltimore Store, moves Reading Branch

A NEW STORE in the chain of Sid Harvey, Inc., Valley Stream, N. Y., has been opened in Baltimore, Md., at 1801 North Castle St. The new establishment, second Sid Harvey store in Baltimore, brings the total in the chain to 47.

Also announced is the relocation of the Reading, Pa., store to a new building at 320 Morgantown Rd. Manager is Arlie Carlisle. The store serves as a branch of the Allentown store.

Your Selling Job Can Be Made Easier...

WITH EXPERT HELP FROM

"THE SELLING MAN"

Specialty Salesmanship With Emphasis On Burner Selling

For the benefit of those breaking into selling and for improvement of active salesmen, W. A. Matheson, a director of Eureka Williams Corp., wrote an exciting book on selling techniques that has helped thousands get ahead faster. He calls it THE SELLING MAN. He believes that almost anyone can sell if he'll take the trouble to learn. The techniques he suggests are practical because he has tested them himself. The $4 investment is a tiny price for so much helpful and profitable information to attain greater success.

The Selling Man

$4 a copy

(we pay postage)

PLEASE MAIL REMITTANCE WITH ORDER! NO C.O.D. ORDERS!

fueloil & oil heat **2 WEST 45th STREET, NEW YORK 36, N. Y.**

Replacements are big Business

(Begins on page 53)

many of our oilheating installations are so new. You'll see in this TABLE 4 that our highest point of displacement of old equipment was 3.3% of total operating in 1948. Over the ten year swing 2.54% has been the average.

This is important to keep in mind lest we allow our salesmen to get the idea that the replacement market is big because oilheating wears out fast. If fueloil distributors lost all of the displacements to other fuels they still would be losing only one-fortieth of their market in an average current year.

Of course, that would be a dangerous practice because it would allow the other fuel advocates to claim that oil users switch to them when they need a new plant. They are taking too much now from a psychological angle, but there are indications from our dealer studies that we are going to be more alert to this phase and push our own replacements harder in the future.

Oil-Heat Institute Postpones Com'l-Industrial Conference

The third annual oilburning and equipment conference scheduled by the Commercial-Industrial Div. of Oil Heat Institute of America for New York, April 15-17 has been postponed. A later date will apparently be set by the committee when some unforeseen problems have been cleared.

TABLE 4

Replacements Average 2.54% of total Oilheating in Use

	Number in Use	Replacements by Oil	Replacements by Other	Percent Replaced by Oil	Percent Replaced by Other	Percent Replaced Total
1947	3,650,514	58,613	44,536	1.6%	1.2%	2.8%
48	3,975,773	90,750	40,950	2.3	1.0	3.3
49	4,490,535	58,200	38,250	1.3	0.9	2.2
50	5,172,134	96,960	50,830	1.9	1.0	2.9
51	5,704,556	91,808	68,256	1.6	1.2	2.8
52	6,345,876	103,283	32,734	1.6	0.5	2.1
53	7,017,609	104,567	47,065	1.5	0.7	2.2
54	7,641,973	118,080	55,604	1.5	0.7	2.2
55	8,255,228	119,483	75,067	1.4	0.9	2.3
56	8,732,445	141,838	90,137	1.6%	1.0%	2.6%

OIL BURNER SERVICEMEN:
What'll You Have?
• ELECTRODES
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• SERVICE TOOLS
• SHAFT SEALS
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HYDROVALVE'S precision manufactured service parts guarantee top performance, quick installation and elimination of costly call-backs.
HYDROVALVE'S engineering leadership also brings you time-saving tools to speed service calls and save you money.
For your FREE HYDROVALVE Catalog of engineered replacement parts, shown actual size, write today to:
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1319 Utica Ave., Brooklyn 3, N. Y., BUckminster 4-1330

4 NEW QUIET AUTOMATIC HI-RECOVERY*
OIL-FIRED HOT WATER HEATER for YEAR 'ROUND HOT WATER
BURNS No. 2 FUEL OIL
COSTS AS LITTLE AS $4.50 PER MONTH
HI-RECOVERY
QUIET AUTOMATIC
OIL FIRED WATER HEATER
• GLASS LINED
30 gallon with 120 gal. hr. recovery
• COPPER LINED
30 gallon with 120 gal. hr. recovery
45 gallon with 180 gallon 1 hr.
• A.S.M.E. GALVANIZED
30 gal.—35 gal.—and 44 gal. for Motels, Apts., State and Govt. jobs.
• TWIN COIL JOBS
for Launderettes and Big Buildings
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PRODUCTS OF
QUIET AUTOMATIC BURNER CORP.
MANUFACTURING ENGINEERS
33-35 Bloomfield Avenue • Newark 4, N. J.

Superior Filtering for all Oil Burning Equipment!

Klemm MICRO FUEL OIL FILTERS

FF-430 U/L

There's a Klemm Fuel Filter for every standard burner using No. 1 and 2 fuel oil. Your choice . . . metal or glass bowl. "Millions Since 1932."

1. Practically no flow resistance—true depth filtration.
2. Simplified construction for simplified service . . . no tools required.
3. Eliminates nozzle and line clogging for increased burner efficiency.
4. All parts . . . Hi-Chrome and Brushed Zinc.

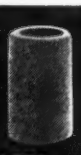
FF-430G

PK-150 U/L

JR-60

chemistone

Controlled porosity element assures sparkling, crystal-clean fuel oil every minute. Traps water . . . removes dust, rust and scale.



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1722 North Damen Avenue • Chicago 47, Illinois
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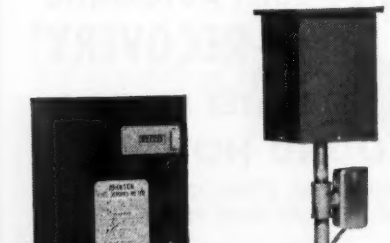


ACCURATE DEGREE DAY INFORMATION

Automatically Computed

The Johnson fuel demand meter indicates the net effect of sun—wind and temperature on fuel oil consumption. Smooth out your degree day deliveries!

WRITE:

Johnson Degree Day Systems

329 S. PITCHER ST. KALAMAZOO, MICH.

Carroll named President at Service Managers' Meeting

H. CARROLL, Esso Standard Oil Co., Washington, D. C., former vice-president, advanced to the presidency of the National Association of Oil Heat Service Manager during election of officers at its annual meeting. The gathering, which took place on March 20 at the Essex House, Newark, N. J., also named Thomas Gough, Griffiths Consumers Oil Co., Washington, secretary; L. M. Robinson, Lowell, Mass., re-elected treasurer; Charles R. Shaffer, Sinclair Refining Co., Philadelphia, former secretary, became vice-president; Jack Madison, Eisenbud Fuel Co., Kenilworth, N. J., re-elected vice-president, and Charles McAlpine, Morton Oil Co., Malden, Mass., elected vice-president. Mr. McAlpine also is president of the Massachusetts Oil Heating Association.

Committee appointments included: Hugh McKee, Massachusetts Wharf Coal Co., Cambridge, Mass., re-appointed chairman of the Education Committee and named chairman, Constitution and By-laws Committee; John Moore, Skelton Fuel, Bryn Mawr, Pa., is Publicity Committee chairman; Jack Davidson, Davidson Heating, Philadelphia, heads the Membership Committee; Jack Madison is chairman of the Labor Committee; August G. Hein, Baltimore, is Domestic Burner Policy chairman, and Charles A. Clough, Clough Oil & Service Co., Malden, Mass., re-appointed Industrial Burner Policy chairman.

Hugh McKee reminded the group that the April 25 Underwriters' Laboratories deadline for faster-acting controls to be used with burners using 7 gph or more requires a greater knowledge of electronic controls. Accordingly, he urged the service managers to encourage their servicemen to attend schools offering specialized burner courses.

Jack Madison was chairman of the Arrangements Committee for the meeting. The group plans to meet informally during the Boston Oil Heat Show, June 4 to 7; will hold its semi-annual meeting in New York next December and its next annual meeting in Boston, March 19, 1958.

Accentuate the Positive

(*Begins on page 69*)

hind barbed wire fences and another desperate family in the grip of the "Utility Octopus" including a dear little girl fighting a huge black tentacle wound around her body and neck!

And, to quote from another: "Is all this hot air about heating just hot gas escaping into the clean air? Pretty soon you may need gas masks," etc. The ad continues, "Let the monoply heating fuel boys peddle all their slick propaganda" and so on.

We hear that some of our more opportunistic members talk about placing oil heat ads adjacent to gas explosion news. Now we surely can't condemn any of us in the business for being aggressive and alert and competitive. But it is my feeling, backed by the vast experience of others, that this is not the way to use our money. This is short-range thinking, and can't possibly build a good name for the oilheat business in the long run.

Don't underestimate . . .

Picture four people talking at a bridge table or across the side hedge or the back fence. They're the world's busiest "press agents." Remember, people always find things out for themselves. If what we advertise is incredulous or erroneous—two big words that mean being careless with the truth—folks will find out about it. On the other hand, if our arguments are good and sound, the seeds will bear fruit. Let us never underestimate the power of good—or bad—advertising.

Here, in order, are the points I think we should make:

First, "Comfort." Let's face it, nobody heats by choice. In the areas where we sell heat is necessary for comfort and health. So what we have to sell is comfort first and next "Convenience." Since we must heat, every-

1. Comfort

2. Convenience

3. Cleanliness

4. Dependable Supply

5. Economy

6. Safety

one wants to enjoy home heating the easiest possible way. Then we can talk about "cleanliness"—and our story on that is as good as competition's.

Next, emphasize "Dependable Supply"—always on hand in the homeowner's tank and available from dozens of sources of supply.

"Economy," of course, but in general terms, not in most cases based on price itself. Surveys show that most people don't know how much they are paying for fueloil.

"Safety," but not as a major argument, just an additional point. "Safe, of course it is." (Safety was mentioned by less than 1% of the people surveyed recently as even a factor in choice of their present fuel and then it was way, way down on the list.)

In two words, the best of our advertising talks in terms of "Consumer benefits." The consumer doesn't care about your problems with "the monopoly." He's interested in whether what you sell—oil heat and service—is better for him than what the monopoly offers—gas heat. So tell him why you are better, tell him pleasantly and simply and consistently and repeatedly.

Yes, "It's good business to accentuate the positive," particularly in cooperative industry promotion. One single company can pursue a bad slant and it will have little effect on industry, though it may do that individual advertiser some harm. But in cooperative advertising, this is the voice, and presumably the policy of the entire local industry. Therefore, the copy line becomes a thousand-fold more important—the responsibility for careful choice of what is said an obligation of the industry.

Perhaps we can sum up the point I am making by saying, it's good business to accentuate the positive and good taste is good business.

Adding Cooling

(*Begins on page 63*)

dure it is found that the addition of the desired cooling capacity cannot be satisfactorily handled by the present furnace and duct system, even with modifications suggested in this article, the following alternatives are offered:

1. Redesign duct system to reduce pressure drop by increasing (a) the size of runs and/or trunk, or (b) the number of runs.

2. Replace the present furnace with one of sufficient blower capacity. However, care should be taken not to greatly oversize the furnace.

3. Add an auxiliary blower to the system for cooling operation.

In adding cooling to existing forced air systems it is not always possible to accomplish all of the theoretical perfections which may be attainable in a new home installation. Compromises are sometimes necessary. However, thousands of enthusiastic cooling customers are proof that satisfaction has been delivered with compromise design values when these are kept within reasonable limits.

BOSTON DRAFT STABILIZER

WORLD'S MOST ACCURATE DRAFT CONTROL

GUARANTEES CONSTANT DRAFT

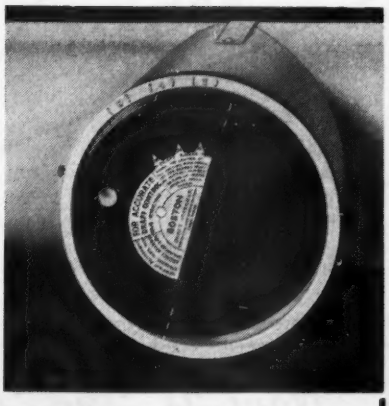
and protects your heater against draft variables that destroy efficiency!

NOW AVAILABLE

in 6", 7", 8", 9" and LARGER SIZES up to 24". All available with or without TEE section.

TOPS in ability to hold draft yet the EASIEST to install.

NO WEIGHTS TO ADJUST Can be properly set, even without instruments.



OPERATE YOUR HEATER AT PEAK EFFICIENCY WITH ACCURATE DRAFT CONTROL

BOSTON DRAFT STABILIZER

1. Slows down travel of gases thru the heater to a desired CONSTANT speed so heater can absorb the heat before it reaches the stack.
2. Holds a constant draft because variations in draft-pull result in changes of air delivery from the burner fan, causing changes in smoke content and CO_2 of your combustion.

Write for complete details

BOSTON MACHINE WORKS COMPANY

Oil Heating Supplies Division, 7-17 Willow St., Lynn, Mass.

LOWEST-PRICED QUALITY BASEBOARD PER SQUARE FOOT OF RADIATION!

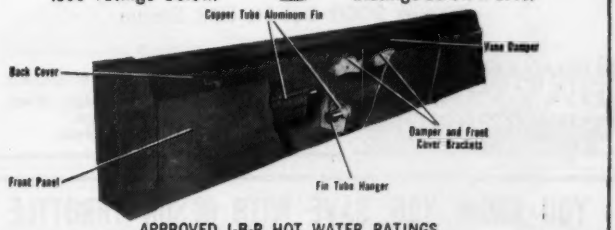
PANEL LINE

HANDSOMELY STYLED . . . QUALITY ENGINEERED

COPPER BASEBOARD RADIATION

FREE STANDING OR RECESSED

SINGLE TIER (See ratings below) OR DOUBLE TIER (Ratings below X 1.40)



APPROVED I-B-R HOT WATER RATINGS

Av. Water Temp.	160	170	180	190	200	210	220	Gals. per hr.
BTU/Hr/Lin. Ft.	480	530	590	640	700	750	800	1
BTU/Hr/Lin. Ft.	510	560	630	690	750	800	860	5

Hoff

NEW MONEY-SAVING DEVELOPMENT

"Hy-Duty" FIN TUBE

680 BTU/HR/LIN. FT. at 180° WATER TEMP.

MAKERS OF SQUARE-LINE RADIATION & CONVECTORS

THE Hoff MANUFACTURING CO.

BETHANY, CONN. MEMBER I-B-R

WRITE FOR LITERATURE AND INSTALLATION DATA

Zoning for Comfort

(Begins on page 60)

or more thermostats. Most are split levels with recreation rooms and living areas at or below the ground level.

We know now that there is an unexploited market for new homes requiring two or more thermostats, and we know how big it is.

In St. Louis . . . 15%; in New Orleans . . . 16%. It is 19% in Memphis; 21% in Houston; 24% in Cleveland, 23% in Boston and 15% in Atlanta. The combined average for the United States . . . 20%. In other words, 200,000 additional units will be required for comfort in new homes in 1957.

How could two or more thermostats operate the heating or cooling system? There obviously are several ways that it can be done. One is to furnish two or more separate furnaces or airconditioning units. Each would serve its own area and operate under the control of a separate thermostat. This is often the most practical and economical arrangement in a large spread-out home.

Separate thermostats also can operate dampers in the duct system and here there are at least two ways to go. One is to have each thermostat continually rebalancing the volume of heated or cooled air to each section of the home by positioning dampers in the supply ducts. Another method utilizes separate mixing dampers controlled by a thermostat in each area. The volume of air remains constant but the air temperature to each section is continually varied by mixing the return and conditioned air. Whether you use separate heating or cooling units or zone rebalancing, the amount of heating and cooling should be continually varied according to the heat losses or gains in each thermostat area.

The record speaks and shows that the homeowner is being slighted on the indoor comfort we promised him because we as an industry fail to properly design, install, and adjust the heating and cooling installations entrusted to our care. We have the "know-how," but it is of little benefit to the homeowner if we fail to use it on every job that we install.

Further, the industry is being shortchanged. Every unsatisfactory job, every toe-tucking woman, every piano-sitting cat, and every bathroom mat frozen to the floor is an indictment of our industry's skill, honesty, and integrity. In this era of jobs cut to the bone for a low price, the blame rests upon the shoulders of every level of trade. This state of affairs will be corrected only when the homemaker has a definition of what we mean by indoor comfort that is stated in the kind of kitchen english she understands. When that happens she will purchase a heating or cooling system as intelligently as she does any other appliance in the house, and the chiseler will be out of business.

The record also establishes the fact that changes in house construction and habits of those living in the homes that we heat and cool have run ahead of the established design practices of our industry. If the house has changed in arrangement to the extent that it is literally two houses with respect to the control of temperatures within it, let us face the fact and furnish the two

HAYWARD
Rotary Atomizing Burners
¾ to 12 Gph
Boiler-Burner Units
400 to 730 Sq. Ft. EDR Steam
Pressure Atomizing Burners
¾ to 10 Gph
Boiler-Burner Units
200 to 2000 Sq. Ft. EDR Steam
Write for franchise information:
HAYWARD OIL BURNER CORP.
86 Kirkland Street, Cambridge, Mass.
Factories in Brooklyn, N. Y. and Taunton, Mass.

NATIONAL REBUILTS ARE BEST
Wholesalers! you can depend on NATIONAL for
Acceptability
Experience
QUALITY
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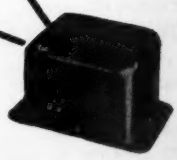
LET NATIONAL SOLVE YOUR TRANSFORMER EXCHANGE PROBLEMS

NATIONAL REBUILDERS
1027 GRAND ST., BROOKLYN 11, N. Y.

YOU KNOW YOU SAVE WITH OLSON THROTTLE CONTROL INSTALLED ON YOUR FUEL OIL TRUCKS
No hand throttle adjustment necessary. Saves time. Some users have increased gallons per minute setting because with OLSON THROTTLE CONTROL speed is increased only while nozzle is open. More oil sold per day, less R. P. M. per gallon sold. Saves gas, oil, and also wear.
You don't increase your automobile engine speed with clutch dis-engaged, why increase your truck pumping speed with nozzle closed.
Idling speed of engine is maintained with pump engaged and nozzle closed. Engine speed, when nozzle is opened, is automatically increased to your pre-determined setting.
OLSON TROTTLE CONTROL is easily installed. Give size of discharge line when ordering.
$34.50 F.O.B. Raynham, Mass. Thirty Day Money Back Guarantee.
OLSON THROTTLE CONTROL, BROADWAY, RAYNHAM, MASSACHUSETTS

Now Is The Time For
This 44 page booklet contains a series of articles by J. R. Lewis on the airconditioning market—the opportunities in cooling sales as they apply to the Oilheating dealer.
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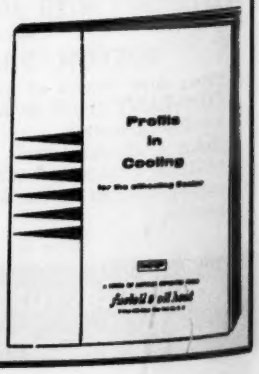

or more thermostats with the necessary equipment to go along with them. There is no shame in selling folks what they need and charging for it accordingly. There are two radios, two TV sets, and two automobiles in many and many a home and they are there because the owner needed and wanted them.

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❖

Austin Rising has been named vice-president in charge of marketing services for the York Division of Borg-Warner Corp. He came to the York Division from the Whirlpool-Seeger Corp., St. Joseph, Mich., where he was director of consumer relations. Prior to that, he was general manager of RCA airconditioning division and, earlier, vice-president and general sales manager of the A. O. Sutton Corp., Wichita, Kans.

Harold H. Hurston has been appointed New England district sales manager of Timken Silent Automatic heating and cooling equipment division of Scaife Co., Pittsburgh, Pa. He held a similar post with Eureka Williams Corp. for six years prior to his new appointment with Scaife.

R. B. Snyder has joined the Percoflash Manufacturing Corp., Madison, N. J., as vice-president in charge of sales. For 15 years, he has been associated with York-Shipley, Inc. in various sales and sales management positions, including the sales managership of York-Shipley's residential division.

Ray G. Pinkerton has been advanced from sales manager of Eastern Foundry Co., Boyertown, Pa., to vice-president, heating and ventilating, and *Herbert B. Aldrich,* advanced from assistant to the president to vice-president, research and engineering.

Orra A. Rice has been promoted to sales manager, manufacturing division, The Meyer Furnace Co., Peoria, Ill. Active in heating and airconditioning sales work for many years, he served as sales supervisor following a period as territorial sales representative.

Edward M. Crary and James C. Carlton have been appointed divisional sales managers, and *Clabe Long* is merchandising manager for the appliance division, Motor Wheel Corp., Lansing, Mich.

T. E. Kent, vice-president of the Milwaukee Fuel & Dock Co., Milwaukee, Wis., has joined the Great Lakes Coal & Dock Co. as a vice-president.

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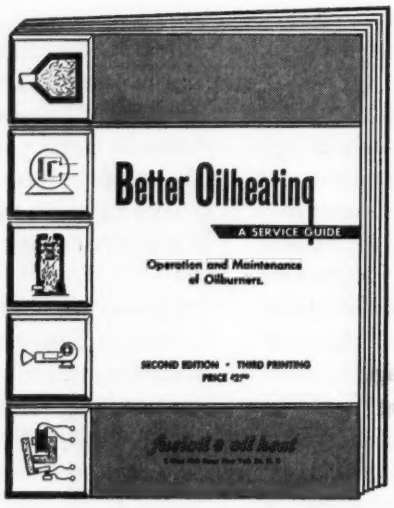

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